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ABSTRACT

This manual contains ideas and descriptions of some of the best ways Scottish schools can use and develop their grounds. Chapters examine the process of change from getting started to planning and making the necessary changes. Specific topics include setting up the management structure, surveying the school grounds, identifying needs and solution planning, implementing and adjusting the plans, dealing with multicultural issues, linking ground development with the curriculum, and addressing special needs issues. Case studies are included. Appendices provide a list of resources and organizations that can assist schools in their grounds development and a reference list of the schools featured in the manual. (GR)

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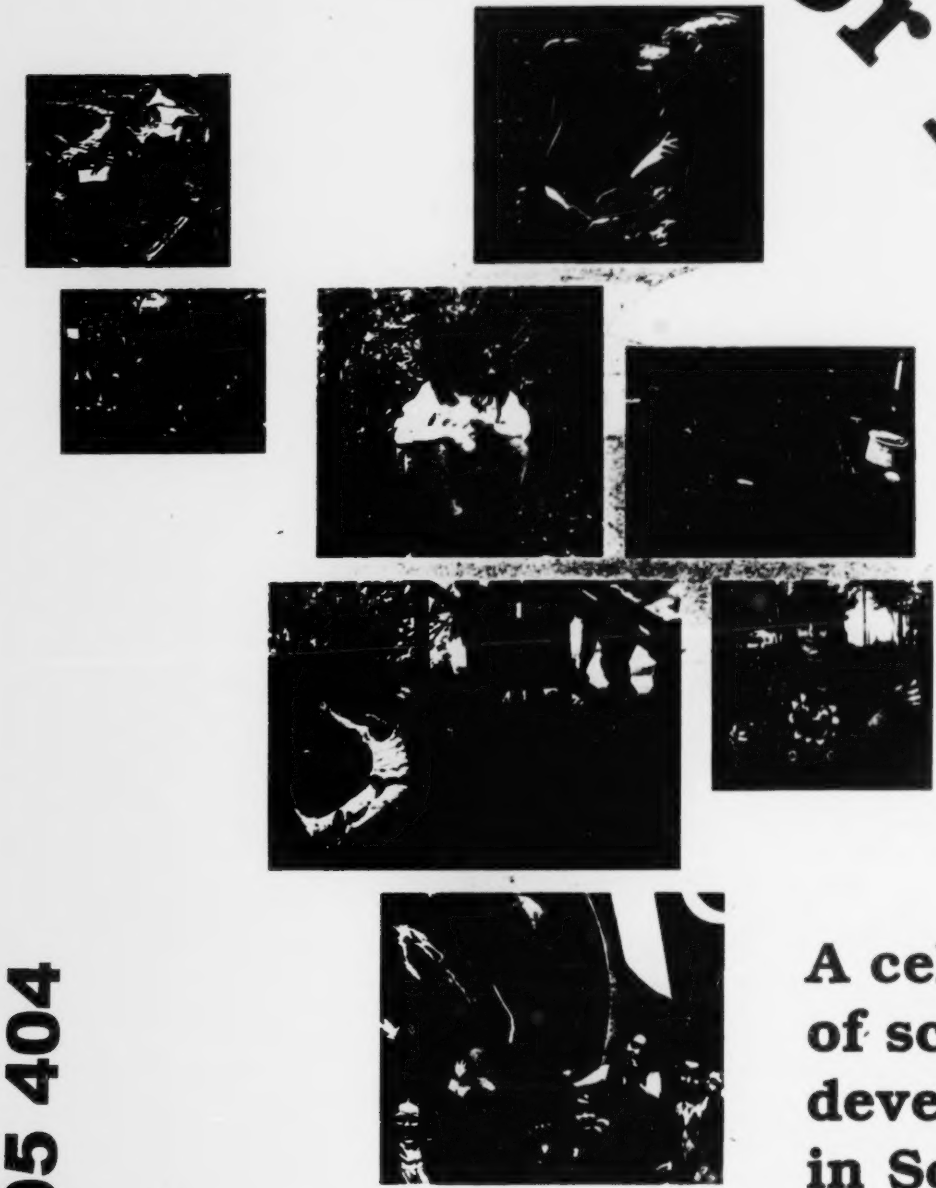

A celebration of school site developments in Scotland

Kate Kenny

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Grounds for Learning:
A celebration of school site developments in Scotland

Kate Kenny

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And finally, to my family and to Duncan Campbell, the biggest thank you for support and encouragement when it was most needed.

The examples mentioned in this book represent only a cross-section of schools which have undertaken exciting projects in their school grounds in Scotland and which I have had the pleasure to find out about. The list is by no means definitive and I am sure there are numerous other projects ongoing that I know nothing about. If you are one such school or an individual who knows of such a school then do let Grounds for Learning know about your project.

Kate Kenny

Stirling, August 1996

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A celebration of school site developments in Scotland

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Foreword

I am delighted to have been invited to write the Foreword for Grounds for Learning. As a father and grandfather of eight, I have a very special interest in it.

The challenge is to provide our children with school grounds which will encourage them to learn about the natural heritage. It is a challenge which was addressed head-on in 1991 when the Grounds for Learning Forum was first set up. Since then tremendous strides have been made and we can read in this book about the many success stories which have resulted from all the hard work which has gone into making Grounds for Learning work.

It is a fact of life that the majority of our children live in cities or towns where they go to school in surroundings which have been aptly described as 'asphalt deserts' or even 'green deserts'. How can we expect them even to begin to understand what the natural heritage is about if that is all the experience of it they are ever given? How can we expect our children to care about native forest regeneration in the Cairngorms if they never see a tree in their own school grounds? How can we expect them to care about wildlife in Scotland, or endangered species anywhere, if they never see any living creature in their school grounds except a sparrow or a city pigeon? Awareness and understanding about the natural heritage, and its worth to the individual, can only be developed through first-hand experience of the natural world. Our schools are where children spend much of their educational lives; schools are where opportunities exist to influence and nurture positive attitudes and good environmental habits in the next generation; schools are where we must bend all our most earnest efforts.

I am delighted to see, through the wide variety of examples in this book, that so many children in Scotland are now being given, within their own school grounds, those important first-hand opportunities to learn and care about the natural heritage. I hope that when other schools, and other young people who have not yet taken up the challenge to renew their school grounds, read this book they, too, will be inspired to transform their school grounds - and that eventually all our youngsters will enjoy schools grounds of which we and they can be proud.

Magnus Magnusson

Magnus Magnusson KBE
Chairman, Scottish Natural Heritage

1

Introduction

An Introduction from Bill Lucas, Director, Learning through Landscapes

Fantastical ship sculpture, Hyndland Primary School, Glasgow

Background to Grounds for Learning Partnership

Learning through Landscapes (LTL) was established in 1990 as an independent charitable trust promoting improvements to the educational use and environmental quality of school grounds in England and Wales.

A number of Scottish environmental educators came to LTL's launch and, in the next few years, close links were fostered between LTL and interested individuals and organisations in Scotland. Since 1990, there has been an explosion of interest in school grounds across the United Kingdom.

It was with very great delight that, with Scottish Natural Heritage, the Scottish Environmental Education Council and the Grounds for Learning Forum, LTL was able to help to create the Grounds for Learning Partnership, now supported by Amerada Hess.

During the last six years, LTL and its partners have carried out considerable research into why some school grounds developments are more effective than others. School grounds are the one external environment to which all children have regular access and, whether or not they are used for teaching, children spend a quarter of their time in them during any one school day. They are vitally important childhood environments in which attitudes are formed.

Key principles

Schools tell us that, while what they have done outside is important, the way they have done it is even more significant. In other words, the process is as valuable as any immediate outcomes. Those schools which have undertaken changes which:

- are sustainable, that is to say, part of a long term process;
- involve the whole site, the full range of formal and informal learning opportunities and the whole school community;
- stress participation, children working with adults,

find that they enjoy a range of benefits.

The benefits

Schools developing their sites according to these principles report a range of benefits, including:

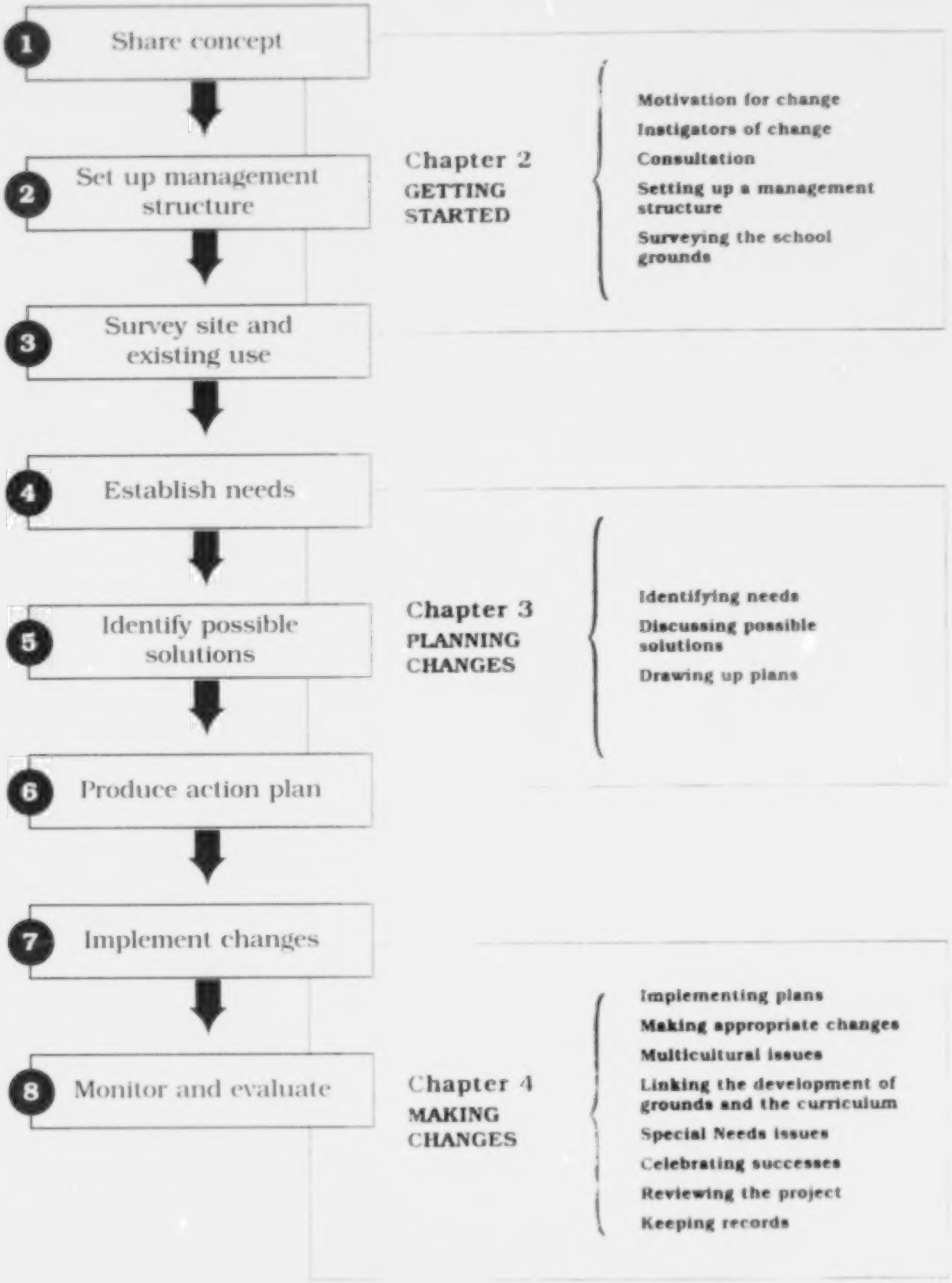
- the development of an ethos of care, ownership and responsibility;
- an improvement not just in the quality of the environment, but also to the appearance and reputation of the school;
- a reduction in accidents and incidents of vandalism;
- the creation of additional resources to support all aspects of the formal curriculum, of play and of child development more generally.

This book is the result of a year's research into grounds developments in Scottish schools. It contains a wealth of imaginative ideas and describes some of the very good practice which already exists. The purpose of the book is to inspire, celebrate and inform all those involved with Scottish schools about the best ways of using and developing their grounds. No matter how small or large their projects, they are all extremely worthwhile and have proved an invaluable learning experience for all involved.

Clearly, not all schools featured in this book have followed every stage of an ideal process, but each of them has taken elements of it. Indeed it is one of the intentions of the book to outline a process, drawn from the experiences of Scottish schools and from those in other areas of the world, which will enable other schools to work more effectively.

The process of developing school grounds is summarised overleaf and the structure of the book mirrors the different stages it suggests.

Process of School Grounds Development



INTRODUCTION

The following chapters in this book highlight the process of change that many schools have undertaken to improve their grounds. Mention is made of over forty Scottish schools which are currently involved in such projects. These vary in size, ingenuity and extent, and an attempt has been made to include a selection of the many inspirational projects that are to be found up and down the country.

I would like to think of this book as a celebration of the achievements of these schools. No matter how small or large their projects, they are all extremely worthwhile and have proved an invaluable learning experience for all involved.

I hope that these schools will carry on the excellent work they have started and that those external agencies and individuals who have helped them achieve great things will carry on supporting them well into the future. I also hope this book will inspire others to think about the enormous value of the school grounds as 'childhood spaces' and to start a project of their own, or for those outwith the education system, to think of helping a school near to them undertake a similar worthwhile project.

At work amongst the wildflowers, James Aiton Primary School, Cambuslang.

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Getting Started

Key points in getting started

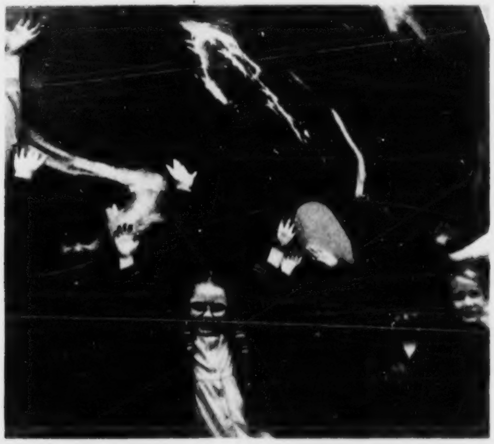
- *Motivation for change needs to be shared throughout the school.*
- *Instigators of change vary, but it is important to establish a broad base of support.*
- *Consultation with all the affected groups is important.*
- *Setting up a management structure helps to spread the word and share the work.*
- *Surveying the school grounds includes looking at physical features and how they are used.*

Increasingly, schools in Scotland are recognising the benefits of undertaking school grounds improvement projects. There are now numerous projects all over the country showing just what is possible, often on very limited budgets. For a school that has already started on a project the benefits may be obvious, and once the initial hurdle is over, things may happen relatively quickly. But for schools wanting to embark on a new project, the prospect can be daunting and one of the most commonly asked questions is 'How do we get started?'

MOTIVATION FOR CHANGE

There appear to be six main reasons why schools embark on development projects:

- for curriculum use of the grounds;
- to improve behaviour;
- to provide better facilities for play;
- to improve safety;
- to enhance the image/appearance of the school;
- to attract wildlife and improve the natural heritage value of the site.



A mural can enhance the appearance of the school

A project may be started for a specific reason or for a combination of reasons. It might be to tackle a particular problem such as bullying or safety, for example, or it might be initiated by a teacher with an interest in wildlife or gardening. Often schools embark on a project for one reason and later discover that they have tackled other issues and benefited in other ways too. Even if a project begins for one specific reason, the whole site needs to be assessed and a plan drawn up to encompass developments over a period of time. The involvement of the whole school in the project and, where possible, the local community too, brings the additional benefit of much greater support and involvement. Considering the whole picture may at first seem to be unnecessarily complicated if all that appears to be required is a wildlife area, but schools are increasingly reporting that unless a broad view is taken, developments can easily become marginalised.

Improvements to provide better play facilities are very popular

INSTIGATORS OF CHANGE

Usually there is something that sparks off an idea, either with an individual or with a group of people, and this motivates a school to embark on a project. This instigating force will vary enormously from school to school. For example, it might be:

- a teacher who has seen what other schools have done and wants to improve the grounds for curricular reasons;
- the school Parent/Teacher Association which, concerned over the number of accidents occurring in the playground, feel that improving the grounds would increase safety;
- a parent who has seen pictures of an exciting school in a publication and feels that the image of their own child's school could be improved;

- pupils who are bored with the playtime facilities in their grounds and decide to do something to improve opportunities for play;
- a local environmental organisation which sees the grounds as uninspirational and sterile and suggests improvements to increase the wildlife potential and also to provide a curriculum resource.

Instigation by teachers

Most school grounds projects are initiated by teachers or the headteacher in the school itself. It may be that they recognise the enormous potential of their school site or identify a particular problem or issue that needs to be tackled and set about improving the grounds to the benefit of the whole school community. Experience has shown that it is extremely important to involve all teachers, or as many as possible, in the project to ensure its longevity. It is also wise to include non-teaching staff, particularly the janitor. Too many projects have floundered or failed because only one member of staff was involved and they subsequently moved on or lost enthusiasm. If a project is to be sustained year after year, then a sufficient proportion of staff must be both enthusiastic and committed to the idea right from the outset.

Planting tatties at Crieff Road Pre-School Centre, Perth

At Crieff Road Pre-School Centre in Perth, the enthusiasm of staff and children has been the major contributory factor to the success of their project. An in-service course in 1992 led the school's teachers to initiate the improvement project. There were several reasons for starting it, one of which was the wish to provide a curriculum resource. A more unusual reason was to help promote a healthy eating policy. A sub-group of teachers now manages the project, organising events and passing on relevant information to other staff and parents.

In contrast, Glenborrodale Primary School, Ardnamurchan, is a tiny Highland school with one teacher and only eleven pupils. Here, the teacher instigated the project, working very closely with the children to encourage them to explore and understand their immediate environment, and to give them the opportunity to see how their actions affect the environment.

It was the arrival of a new deputy headteacher at Bonnington Primary School, Edinburgh, in 1993 that set in motion the school grounds project. Dorothy Darling had previously been at Wardie Primary School, where, starting in 1988, the grounds were transformed from a 'grass desert' into a valuable resource with an extraordinary range of features and facilities. Her new school proved to be more of a 'concrete desert' type of challenge, but she was soon able to convince the staff of the benefits of developing the site and was able to engage all the staff and the pupils in the idea right from the outset. The most important reason for embarking on the project was to improve provision for play and to change the children's attitude to their immediate environment, but other benefits have also been forthcoming as a result.

At Slaemuir Primary School, Inverclyde, the school courtyard project developed out of issues raised by an HMI inspection of the school in 1993. The inspectors suggested that problem solving needed to be tackled and the staff decided that a school gardening business would be an ideal mechanism to address the issue. The business is run and managed by the children, with technical advice provided by a local horticultural expert. The children's hard work resulted in the school being awarded the Scottish Council Development Industry (SCDI) 'Mini Enterprise for Schools' Award in 1994. An account of the project work was also published in Primary Enterprise

Sorting the crops! Slaemuir Primary School, Inverclyde.

Case Studies, co-ordinated by the SCDI.

HMIs are increasingly taking note of the appearance of school grounds and the use that is made of them, and as more and more schools improve their sites it is likely that the grounds will feature more frequently in inspectors' reports. At Strathblane Primary School in Stirling, for example, an HMI report in May 1995 commented favourably on how the grounds looked and were used.

Events can sometimes be the motivation for projects. School Grounds Day 1995 was just the inspiration that class teacher Lorna Purdie needed to start the project at Ae Primary School in Dumfries. This is a small rural school, with only twenty-four pupils and the project has afforded the ideal opportunity for the whole school to work together, as well as involving the local community and providing a valuable cross-curricular resource. The school now has a variety of different wildlife habitats, bird feeding and nesting facilities, and an exciting mural which has livened up the outdoor bike shed.

Teachers at Sanday Junior High School, Orkney, initiated environmental developments in the school grounds purely to attract wildlife. In the early autumn of 1995 their efforts were rewarded when a number of species of migrant birds used the school's wildlife area as a resting place on their journey south. Species identified included tree pipit, garden warbler, blackcap and snipe. The small area of trees and shrubs has been slow to develop, mainly because of the adverse weather and site conditions on Orkney, but it provides a useful curriculum resource for project work by the children.

Instigation by children

If the children take a lead role in a school's project, then it is more likely to be successful because they will have a sense of ownership of it. Children can be very persuasive if they feel strongly about something, and, after all, the school grounds are theirs and it is they who will undoubtedly benefit the most from any improve-ments. Ideally the children should be involved at all stages of the process, to ensure they develop a sense of stewardship, responsibility and a positive attitude towards the environment. If this is allowed to happen the project is more likely to be sustainable.

Few projects tend to be solely instigated by pupils, but often their feelings and ideas are so strong that they have been able to persuade teachers of the validity of their case. The following examples are evidence of this. In all the cases, the pupils managed to persuade the staff and parents that what they wanted to do was worthwhile.

Looking for mini-beasts at High School Yards Nursery School, Edinburgh

At High School Yards Nursery School, Edinburgh, it was the pupils who sparked off the idea, back in 1989, of improving their extremely small grounds. The children discovered caterpillars on the site and watched them develop into butterflies. They then decided they wanted to create a haven for other wildlife and so the transformation began. The school's tiny grounds, perched on top of the Flodden Wall right in the heart of Edinburgh, are now well developed and provide a cross-curricular resource, as well as an important informal play area. The site is also made use of for in-service courses for teachers.

There is an extensive wildlife garden with paths, signs and a variety of habitats, a play area with fixed equipment and safety surfacing, and a courtyard area with a multitude of features, including a sink pond and numerous planters. The headteacher, Gill McKinnon, takes great pride in the fact that improvements to the site, which have continued since 1989, have been relatively easy to undertake at very low cost, owing to donations and help in kind, plus continued support from enthusiastic parents.

Similarly, at Dunning Primary School, Perthshire, the pupils were the instigators of their school grounds improvements in 1991. The Class Council decided they wanted to turn a piece of wasteground on the site into a football pitch and wildlife garden. The children took total control and responsibility for the project, writing letters, organising meetings with the local community and fundraising. The project has gone from strength to strength and the whole school site has now been improved, while further plans exist for future developments.

The pond digging team at Dunning Primary School, Perthshire

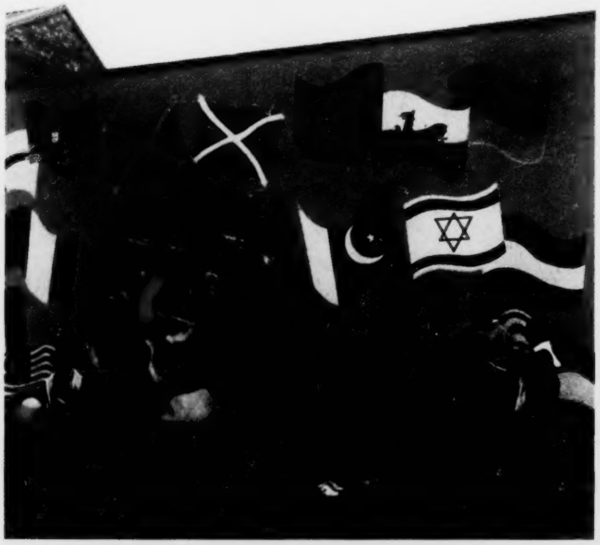
At Currie High School in Edinburgh, again it was the pupils who originated the idea of improving the grounds. A competition organised jointly by BT and Lothian and Borders Police in 1989 encouraged six senior pupils to instigate improvements in the Curriehill Strip, a piece of woodland adjacent to the school. Various native trees have been planted, both in the woodland strip and around the whole school perimeter, and a wildlife garden and a tree nursery developed. The project has grown into a major influence on the whole school grounds development plan.

Instigation by parents or PTA/school board

Often, it is the parents or the school board who are the driving force behind a project, seeing an opportunity to spend accumulated school funds or to address a particular problem that has come to light on the school site. Safety issues and behavioural problems at playtime and lunchtime, for example, may be at the forefront of parents' minds. The parents' involvement can also be very important in terms of providing much-needed muscle power for heavier improvement work, successful fundraising and helping to raise the profile of the school in the local community. Once the idea has been explored and developed, it is essential to get the school's pupils, teachers and non-teaching staff involved.

At Gargunnock Primary School, Stirling, it was very much the parents, through the PTA, who inaugurated the improvements to the school site. The project is overseen by a playground officer, a member of the PTA, who leads the management of the project as a whole. Initially teachers in the school were a bit sceptical about the project, but it wasn't long before they could see the enormous benefits to be gained both in the physical environment and in the children's behaviour.

Tollcross Primary School, Edinburgh, is another example of a parent-inspired project. This is a much larger, urban school and the



United Nations Mural, Tollcross Primary School, Edinburgh

all-tarmac grounds were regarded as an empty wilderness which the children found boring and uninspiring. A Playground Development Committee was established in 1991, comprising parents, teachers and non-teaching staff. Plans were drawn up, based on the children's ideas, and improvements were started once sufficient funds had been raised by the Committee. Tollcross is an open school and also has an active Community Education Centre on the site so the possibility of vandalism had to be taken seriously into consideration during the planning stages. To date, there has been very little vandalism, and because local people are involved in the project, the school is now seen as an important part of the local community.

The Playground Development Group, made up largely of parents, at Hyndland Primary School in Glasgow was very much the driving force behind the school's project, but for quite a different reason. An unsafe annexe building was due to be demolished in the summer of 1995 and so the Group took that as an ideal opportunity to have a say, not only in the design and location of the new building, but also in the redesign of the school grounds themselves.

At Perth High School, again it was parents and teachers through the school PTA who set going the project to improve the site. The aim was to tackle behavioural problems and to improve the appearance of the school. A small garden with seating has been created to provide a quiet area and this has helped to deter incidents of bullying. The development was an integral part of the school's anti-bullying policy. As well as helping to improve relationships within the school it has also shown pupils that they are able to influence and change things.

Instigation by an outside agency

Less frequently a school may be approached by an outside organisation which sees scope for the school to develop its grounds. It might be a private sector organisation, such as a firm of landscape architects or building contractors, or a voluntary sector organisation, such as one with an interest in the environment. Some such projects may start off enthusiastically but then fail, primarily due to lack of involvement and, ultimately, lack of commitment by the school. Experience has shown that if such a scheme is to be successful, the agency must work very closely with the whole school community right from the start of the project and, in particular, the children should be involved at all stages of the development. The site also needs to be very carefully surveyed at the outset.

An example of a project initiated by an outside agency – in this case a countryside management project – can be seen at James Aiton Primary School in Cambuslang, South Lanarkshire. In 1985 the Clyde-Calders Project contacted the headteacher to see if the school would be interested in acting as a 'guinea pig' to show what could be achieved in school grounds. The teachers and pupils worked very closely with the Clyde-Calders staff to create a variety of features in the grounds including a woodland area, a wildflower meadow, a tree nursery, a pond and a scrub hedge. The use of the grounds has been incorporated into the school's curriculum development plan to ensure that all staff and pupils are involved in the ongoing use and maintenance of the site.

CONSULTATION

Once the idea for a school grounds project has developed, then it is essentially up to those initiating it to persuade the rest of the school community that it is a good idea. Enthusiasm and commitment to the idea are essential from the outset and it is important that these are shared by the whole school community. Consultation with everyone concerned is therefore vital so that a sense of involvement is felt by the whole school. Experience has shown that the most successful projects involve as many people associated with the school as possible, even including local businesses, industry and service providers. There is also very often assistance from an outside agency, usually from the voluntary sector, such as a local ranger service or a local environment centre.

Working together! Path building at James Aiton Primary School, Cambuslang.

In secondary schools in particular the lack of time that staff can devote to a development project can present problems and it is important that as much support as possible is sought from appropriate bodies both within and outside the school community.

SETTING UP A MANAGEMENT STRUCTURE

To carry the project forward some sort of management structure will be required. This can be organised in a number of different ways. Whatever the structure chosen, it is important that:

- the headteacher is involved and supportive;
- everyone involved has clearly defined roles;
- there is a small group which takes overall responsibility.

As we have seen, in many cases it is the PTA or the school board who take a lead role. They may decide to set up some form of playground action group or management group to steer the idea forward. They might also organise open meetings and events and perhaps produce a newsletter to inform anyone interested of their progress.

Parents at Hyndland Primary School in Glasgow have formed a Playground Development Group to steer their school grounds improvements. The Group includes parents, teachers, pupils and representatives from a local countryside project, the Kilpatricks Project. The children's ideas have formed the basis for the proposed changes and school staff are consulted at all stages. A regular newsletter is produced to keep everyone informed of progress and as a means of asking for additional assistance and funding. Regular open meetings are also held to display plans and ideas and to get vital feedback. Although still at the early stages of development, the scheme is a good example of an essentially parent-led project involving the school community.

Open Day at Hyndland Primary School, Glasgow.

Another mechanism to ensure a project's success is to incorporate all aspects of the improvement, use and future maintenance of the site into the school's curriculum development plan. All members of staff should be involved and have a part to play not only in using the site but in maintaining it, too.

At Prestonfield Primary School in Edinburgh the whole curriculum was studied to see how and where the school grounds could be used as a context for learning. Improvements to the grounds started in 1993 for two different reasons: to raise children's awareness of the environment and the fact that they could have a positive impact on it, and to improve the ethos of the school. The headteacher, Dorothy Dowie, felt strongly that the school's ethos and the quality of teaching in the classroom were being eroded by what was happening in the school grounds at playtimes. With nothing to do outside, the children were bored and behavioural problems were commonplace.

The Courtyard Garden, Prestonfield Primary School, Edinburgh

Improvements have taken place gradually, as and when it seemed appropriate to make further changes, and the children have been involved at all stages. To ensure the long-term sustainability of the project, the development of the grounds has been incorporated into the school's curriculum development plan. A maintenance schedule also exists, with each teacher and class assigned a specific area of responsibility, and an anti-litter policy has been developed. All of this is felt to contribute to an improved ethos in the school and the engendering of a sense of pride and ownership in the school project.

An interesting and innovative approach to management of the project is for the pupil council in the school to be responsible for overseeing the project and decision-making. At one time, the idea of pupil councils might have been dismissed as eccentric and possibly dangerous, but increasingly both primary and secondary schools are establishing pupil councils to tackle problems in an adult and democratic way. A typical pupil council is made up of representatives from each year group in the school, who meet on a regular basis to discuss issues which affect all pupils, such as bullying, school uniform and the school grounds. A council can be a very powerful mechanism for pupils to have a say in the management of their school.

Broughton Primary School in Edinburgh has a 'wishing well' where pupils can deposit notes about their wishes and worries totally anonymously. It was the wishing well that highlighted the general dissatisfaction with the school grounds and led the pupil council to conduct a detailed survey on pupils' views. This resulted in plans to improve the grounds as part of the school's Centenary Playground Project. The vast all-tarmacadam site tended to be dominated by football at playtimes and during the lunch break. The council decided this was unfair and set about making changes. A playground survey was conducted and pupils submitted comments and drawings on the sort of grounds they would like to see. The council then enlisted the support of a landscape architect and an artist, both of whom visited the school on several occasions to help the pupils translate the ideas into detailed proposals. The resulting plans were officially launched on School Grounds Day, 3rd May 1995, when the school was also featured on BBC television and radio. The proposals are still at an early stage of development, as the school is currently undertaking a massive fundraising exercise to enable the plans to be put into action.

School grounds plan. Broughton Primary School, Edinburgh

Once a management structure has been established, the school can begin to look at how it will carry the project forward and develop some sort of plan and timescale. It is important not to rush into making changes on the ground at this stage, but to spend time getting to know the site and assessing opportunities that exist and constraints that may hinder any future plans.

SURVEYING THE SCHOOL GROUNDS

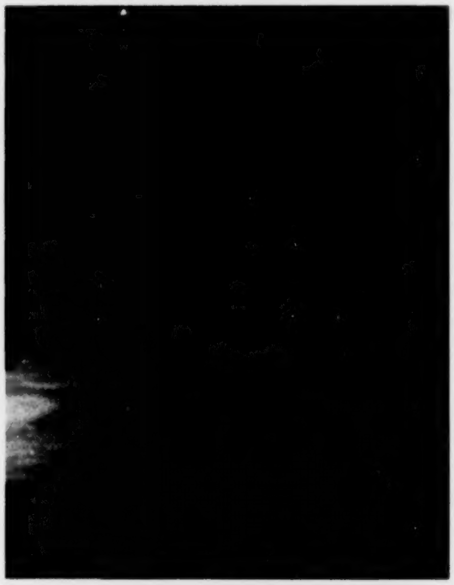
An ideal way to learn more about the site, and to use the grounds as a curriculum resource at the same time, is to undertake some sort of survey. Before a school plans the changes it wants to make in the grounds, it must first find out what it has there already and how this is used. This will ensure that the best use is made of existing features on the site and that any constraints are recognised.

Undertaking a survey of the site also provides an excellent opportunity for delivering various aspects of the 5-14 curriculum in a practical way, as well as being an ideal vehicle for cross-curricular links. Planning, collecting evidence, and recording, presenting, interpreting and evaluating results can all be covered and will help the pupils develop informed attitudes to the environment. It need not be a daunting task and classes from primary one to seven can be involved in different ways. Aspects of the school site that could be surveyed include existing wildlife habitats, walls and boundaries, different types of surfaces and areas, playground use (by children and others), mains services running through the site, and microclimates (sunny and shady spots, windy areas, etc.).

Linking these activities to the curriculum is not difficult to do. For example, in Environmental Studies, investigations could include: former use of the site, old maps, interviews with older members of the community to find out what school used to be like (People in the past); building types and materials used, land use around the school, weather and maps (People and place); different habitats in the grounds, seasonal changes, birds and other wildlife (Understanding living things and the processes of life); design projects for seating, shelters, bird feeding and weather measuring devices (Technology). In Mathematics, boundaries and areas could be studied, and Language work could include keeping diaries on seasonal changes or writing poems to express feelings about the school grounds. The possibilities are endless.

There are many different methods that can be used in carrying out surveys, such as practical observation and recording, interviewing people, writing (letters/questionnaires), drawing, photography and video recording. A number of publications offer advice in this area, such as the Esso Schoolwatch Pack (see Chapter 6: Useful Resources).

At Underbank Primary School in Crossford, South Lanarkshire, the pupils carried out a questionnaire survey to find out how

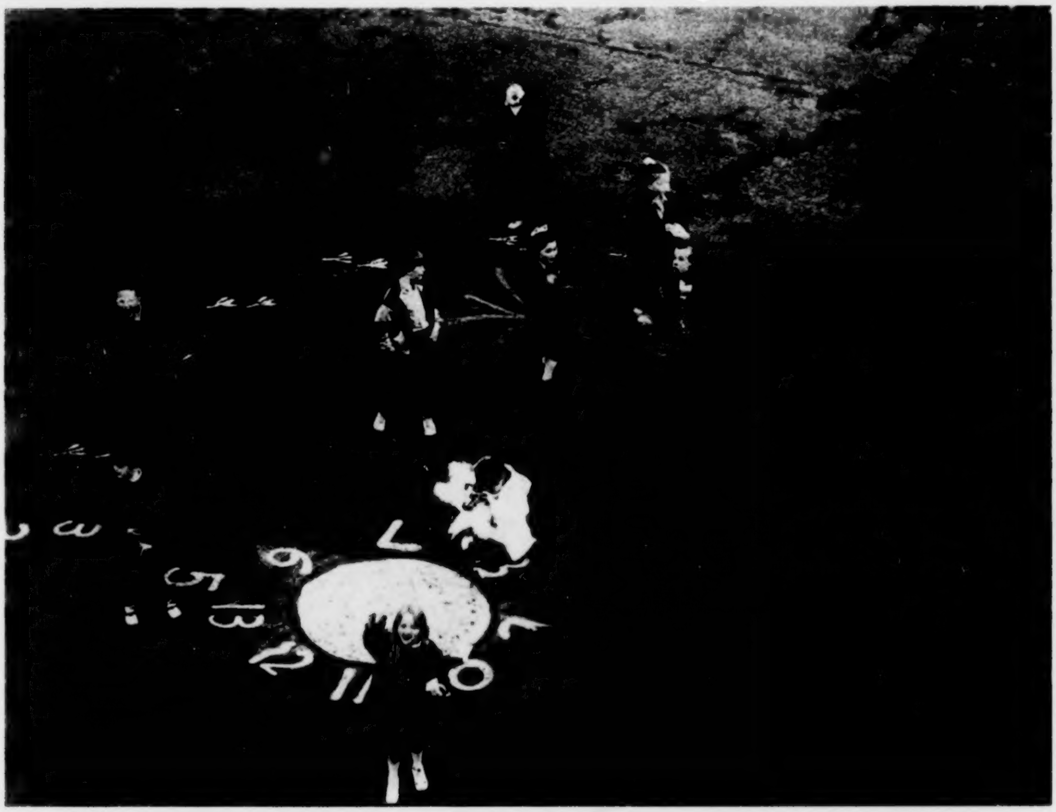


Bird box, Underbank Primary School, Crossford.

everyone felt about the all-tarmacadam school grounds. The result was unanimous – total dissatisfaction. As a result of this, they looked closely at the whole site and decided to create a grassy area, that would be softer than tarmacadam to play on, and an environmentally friendly garden area which would encourage wildlife and be a useful curriculum resource.

A detailed survey of the grounds was carried out and a manageable time-scale drawn up. This meant that the improvements, which ensued over a year later, were sited in the most appropriate places and all possible opportunities and constraints were considered.

One phase in the developments undertaken at Peel Primary School, Livingston, West Lothian, was to improve opportunities for play by designing and painting games on the playground. All the pupils were surveyed to find out their views on the games played and on what games they would like to see painted outside and where. They were encouraged to design their own games and the best of these were used to enhance the tarmacadam playground. The games have proved extremely popular and have been so well used that they need repainting after only a year's use. In addition, because the children had a major input, they feel they are valued and an important part of the school.



Painted playground games brighten up even the dullest playground.

Crieff Road Pre-School, Perth

The school

Crieff Road Pre-School Centre is a nursery school in Fairfield, Perth. The school is bordered by a railway line on its north-east side and on the others by a large housing scheme, which used to be very run down, but was regenerated in 1993. There are 135 pupils, between the ages of two and five, on the roll. The school was built in the late 1970s and is a single-storey building. Before the project started, the grounds consisted of an area of tarmacadam and grass, some of which formed a steep bank. There was also a formal garden area with shrub beds which was maintained by the local authority.

The reasons for change

It was the teachers who decided to develop their school grounds to make them a more interesting place for the children. This decision came about for two reasons. First, one of the teachers attended an in-service day organised by the local education authority in 1992 and came back inspired with ideas. Secondly, the housing estate nearby was being regenerated and the staff felt that they also ought to do something to enhance the local environment. They decided that they wanted to improve the school's appearance, attract wildlife to the site and make it a useful resource for teaching and learning. They also saw the project as a means of encouraging a healthy eating policy in the school, by raising awareness about growing fruit and vegetables.

Getting started

In 1993, a school grounds environment group, consisting of five members of the school staff, was established to start planning changes. This group made the ultimate decisions and passed on information and ideas to other staff, all the pupils and a few interested parents. Only part of the site was considered for improvement initially, but gradually the project has expanded to encompass a larger part of the site and there are plans for further improvements in the future.

The Woodland Walk, Crieff Road Pre-School, Perth.

Improvements take shape

The school has gradually developed a number of different wildlife habitats and fruit and vegetables have been planted and harvested. The project has been developing steadily since 1993. The first year saw the once formal shrub beds transformed into wildlife-friendly garden areas, which the children helped to dig over, fertilise and plant with interesting herbs, wildflowers and shrubs. The playground was transformed from grass and prickly bushes, designed to keep children away, to an area that would encourage the children to take an interest in plants, insects and birds. Tubs were also planted up. Initially, small conifers were planted in them, but these were vandalised. Next, geraniums were tried, but these too disappeared. It was a case of third time lucky, with the planting of wildflowers which survived.

In the second year, other formal shrub beds were turned over to wilder planting, with adjacent patio areas introduced for creative play. Stepping stones were placed across the beds to encourage the children to wander through them, smelling and touching the plants. A woodland walk has also been created, with bark paths through the area and rotting log piles, bird-boxes and bird-tables to attract insects and birds into the grounds.

The children have done a lot of the hard work on the site themselves, transporting soil, sand and plants in their child-sized tractors and trailers and using child-sized tools, of which the school has a plentiful stock. The children are also provided with wellies if they are not suitably clothed for outdoor work.

Other features include a slide on the grassy bank and adventure play equipment, the most recent acquisition in the school. Every year, one growing area is set aside for fruit and vegetables. Beetroot, turnips, potatoes, tomatoes, cabbage, carrots, courgettes, in fact all sorts of vegetables, have been successfully grown. They have then been used in the school kitchen to demonstrate the importance of fresh food and healthy eating. The school cook also regularly makes use of herbs grown in the grounds in the fifty or so school meals she has to prepare every day.

Future plans include more bulb planting throughout the grounds to provide spring colour, and an extension of the woodland walk. In addition, climbing plants and trees will be planted to screen the railway line from the school, and there will be further development of the garden beds.

Support and finance

The school has received help from the local authority Parks and Education Departments, the local ranger service and a number of outside agencies, including Scottish Natural Heritage and students working with the Scottish Wildlife Trust. Local businesses in the Perth area have also assisted with help in kind, usually in the form of donations of plants, soil and other materials, and some financial donations. In addition, the school has received financial support from a number of charities, which contributed to the cost of a new piece of adventure play equipment and bark safety surfacing in December 1995. Parents have also provided plants, bulbs and shrubs.

To date the main project has cost between £2000 and £3000, with a further £4500 being raised to fund the adventure play area. Securing funding for the project has not been too much of a problem and developments have been undertaken as and when funding has become available. A grant was received from SNH and funds have been raised by the school itself. Another source was the prize money from a national competition. In fact, the school has been very successful in winning a number of competitions, and was runner-up in the Keep Scotland Beautiful Junior Greenfingers Award in 1994. It has also been awarded the Cairncross Trophy for Schools in the annual 'Perth in Bloom' celebrations for three successive years. The aim of this award is to further children's interest in the natural heritage. The school decided not to enter in 1996 so as to give other Perth schools a chance! In 1995, the school was selected to feature on Channel 4's 'Garden Club' programme.

Resolving problems

The project hasn't all been easy and successful, but the school has learned from its setbacks. Despite the school's location, vandalism has been minimal. There has been some damage to tubs, bird-boxes and bulbs planted. A 'barrel' water garden wasn't particularly successful and was a target for vandalism, so it was decided to plant it with bulbs instead. Another problem was the marsh garden, which was found to dry out in hot, sunny spells, so it was planted up with more appropriate plants.

All phases of the project were carefully negotiated with the grounds maintenance staff, who have been very co-operative and helpful. Maintenance of the site is now undertaken jointly by the school and the grounds maintenance staff working in partnership. All new and altered features are the responsiblility of the school, while grass cutting and care of the formal shrub beds are left to the council workforce.

The benefits

The improvements have provided the school with a very valuable curriculum resource. The headteacher, Mrs Maureen Whyte, strongly believes that children are never too young to learn. All the children are involved in all aspects of the school garden and the ratio of ten children to one adult means that practical investigative work is achievable. The garden areas are used for all sorts of curricular activities, such as Drama, Art work, Home Economics, Music and Science.

The use of the grounds is written into the school's environmental policy to ensure that everyone is committed to the idea and the project will continue to develop. The children are regularly involved in planting, weeding, harvesting and watering the garden areas. They observe, investigate and generally enjoy their environment. In terms of the informal curriculum, free play activities are planned to allow scope for children's interests and energies and to extend their knowledge. After school hours, local children have access to the grounds and are encouraged to respect the gardens and the younger children's efforts. Many are former pupils of the nursery so this is not generally a problem. Other informal activities include mini treasure hunts to stimulate awareness of the environment and occasional Open Days for parents. In addition, parent groups are encouraged to attend talks at the nursery on basic gardening skills and on cooking with herbs.

The development has also given the school an opportunity to work with outside agencies, to make contact with the local business sector and to improve relations with the local community. People living near the school have been very good at reporting incidents of vandalism to the police and this has helped to keep such problems to a minimum.

Perhaps most significantly, the project has allowed the children to have direct contact with their environment. They have experienced the satisfaction of seeing plants and vegetables grow and have learned about their use. This contact with the natural world has also helped to reduce the children's fears of bees, wasps and other creepy crawlies. Now, instead of being frightened, they are more likely to be excited and say, 'Look, come and see this!' Both staff and children continue to benefit from the ongoing interest in the project. It fulfils all aspects of a good nursery experience that the school aims to provide for the children.

Children enjoy looking for and handling minibeasts in the school grounds.

Advice to other schools

- Involve everyone: the success of the project lies in the enthusiasm of both staff and children.
- Look at the outdoor environment as an intrinsic part of nursery education.
- Involve the children at every stage: they are never too young to help out.
- Start on a small scale: once some success has been achieved everyone is inspired to do more.
- Incorporate the use of the grounds into the school's environment policy to ensure the whole school's commitment to a sustainable project.

Wardie Primary School, Edinburgh

The school

Wardie Primary School was built in 1931 and is situated in a suburban area of north Edinburgh. It has a roll of approximately 410 children and seventeen staff, plus learning support staff. Architecturally, the school is very pleasing, with an enclosed courtyard area in the centre of the school, accessible from almost all classrooms. This used to house a rose garden but is now home to a multitude of different features and wildlife habitats. Set in a grassy, sheltered site, this area has become a dynamic teaching resource.

The school was the original 'open air' school, designed by J.M. Johnston. Its extensive grounds were initially of tarmacadam with mown grass playing fields. The grass area was literally a huge 'grass desert' (totalling just over 2 hectares) but developments in the school grounds have helped to transform this into a much more useful and stimulating resource. A feature of the interior of Wardie School is an eye-catching Alice in Wonderland mural on a wall of the school hall, painted by Robert H. Westwater in 1936.

Children regularly work outside in the school central garden.

How the project developed

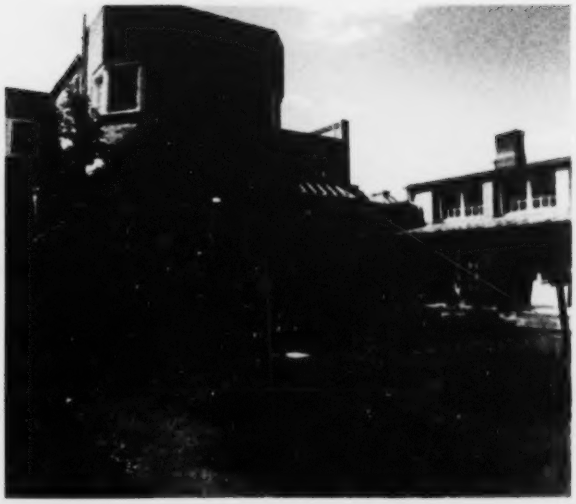
Improvements in the grounds started in 1989, instigated by pupils and teachers working with advice from an Edinburgh-based countryside ranger, David Darling (now retired). The grounds were recognised as a valuable but under-used resource, so a long-term plan to improve the site was developed. Pupils, teachers and non-teaching staff were involved in the planning and development stages of the project. Parents are also now involved, particularly with regular maintenance and future developments.

The whole school site has been considered, with improvements being implemented in phases, as and when time and funding were available. The project is underpinned by a school ethos which includes the placing of a high value on caring for and protecting the surrounding environment, recognising that a stimulating playground environment has direct repercussions on social education.

The central garden

The inner courtyard area is now a very useful curriculum resource which the whole school has access to and makes use of. It is home to an excellent wildlife pond, which has been designed to make pond dipping and general observation particularly easy. There is also a herb garden, numerous log piles, a tree nursery and small areas for growing food crops, such as a square metre of wheat or corn. There are bird-boxes, bird-tables and feeders, and trees and shrubs have been selected for their berries in order to attract birds into the area for observation. A regular visitor is a blackbird which nests in a tree conveniently located next to the school. The window has been blacked out, leaving only a 'peep-hole' through which children are able to observe the eggs hatching and the young feeding and growing.

Children in primary one collect local tree seeds and plant them out in pots in the tree nursery. From then right through to primary seven, they watch over their growing seedlings. When the trees are big enough the children plant them out in the school grounds. Each has a label with the child's name, so that they can revisit their tree as it grows.



The school buildings and central garden, Wardie Primary School, Edinburgh

Other features and future plans

Other improvements made to the school site include a shelter (a former bike shed), brightened up with geometric murals; picnic-bench-type seating; an outdoor chess-board and boules playing area; a woodland area with a nature trail; a hedgerow and bird hide; logs laid on bark chips, which are used as play equipment; painted playground games and outdoor planters to make the school look more welcoming.

There are plans to continue improving the site. These include further work on the nature trail and putting up information boards. More seating is to be installed in the upper school playground and additional play facilities are planned for children in the upper school. Tree planting is being carried out on a ten-year programme.

On the whole, the school now has a extensive range of habitats, social features and play equipment and staff feel they would be struggling if they took on too many more developments, particularly in terms of maintenance. The existing habitats are constantly changing and developing and it is felt that efforts should now be concentrated on making the best use of existing facilities, such as maximising curriculum use of the site. The older pupils are being encouraged to look at classification and are undertaking an audit of the site, part of a longer-term monitoring project. Information will be stored on a data base and will form the start of long-term records of the site.

Support and finance

Funding for the project has come from school funds and from the 'Grounds for Awareness Scheme' which operates in the Edinburgh area. The school has also had much help in kind both from the local authority and from local businesses and outside agencies. It is difficult to assess exactly how much has been spent over the first seven years, but on the whole the developments have been of fairly low cost. The school has been reasonably successful at fundraising and has had very little vandalism to contend with.

Maintenance and management

The use, further development and management of the school grounds are incorporated into the school's development and grounds plans to ensure that the developments are sustainable. All resources created have been written into the school's curriculum planning and all seven stages of the project have a specific focus and related maintenance responsibilities. Each primary class has an area of responsibility in the grounds, which ties in with topics to be covered during that year. Primary threes, for example, working on pond study, are responsible for the maintenance of the pond area. David Darling, the retired ranger, continues to provide the school with advice and support.

The benefits

The school grounds are now much more attractive and are enjoyed by the whole school community, both formally and informally. They are extremely well used as a curriculum resource, particularly for teaching the Environmental Studies curriculum, and also for other areas such as Language, Computing and Expressive Arts. The changes have had a beneficial effect on the whole ethos of the school, creating a caring, secure climate in which everyone in the school is valued. This combination of an improved school ethos and a more stimulating external environment has made the school a popular choice with local parents.

Advice to other schools

- Start on a small scale.
- Maximise ownership and involvement throughout the school.
- Incorporate the use of the grounds into the school's ethos, aims and curriculum.
- Once the project is under way, development and maintenance plans are essential.
- Make sure that no project gets out of control. The Wardie hedge was planned to be 2 metres long and ended up nearer 60 metres!

Wardie's woodland area with nature trail enhances the perimeter of the grounds.

Perth High School

The school

Perth High School is a large suburban secondary school on the outskirts of Perth, surrounded by housing on most sides and adjacent to one of its feeder schools, Oakbank Primary. It has a roll of approximately 1500 pupils and 100 staff. The school was built in 1971 and the grounds contain a mixture of a number of paved courtyard areas, some formal shrub beds, all-weather pitches and large areas of grass, which often become very muddy.

Breaktime for pupils at Perth High School.

How the project developed

The idea of creating a garden as a quiet area came initially from the headteacher, Charles Kiddie, and the PTA in 1993, and it was then discussed with parents and teachers. Mr Kiddie was keen to get parents and the local community more involved in the school and he also felt that the appearance of the site needed improving. Another motivating factor was the belief that it might help to improve pupils' behaviour if an area was provided for those who wanted to sit quietly. In fact, the development formed part of the school's anti-bullying policy for this very reason.

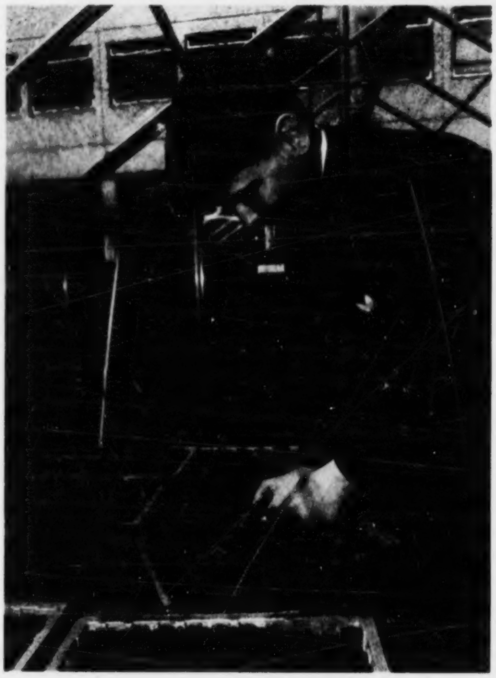
Improvements

There are four similar-shaped courtyard areas in the centre of the school. One of these has been developed as a quiet area for use both formally and informally. It now contains seating and more interesting planting, and because it is very sheltered it makes an ideal place for quiet reflection. The garden was officially opened in June 1995 by a local councillor.

Another courtyard has been furnished with a greenhouse and shrub beds and is to have a pond installed in the future. A third quadrangle has an all-tarmacadam surface with basket-ball nets and since this is well used by the pupils it will be left as it is for sports activities. The remaining courtyard is going to be improved as an art/sculpture area, with interesting shapes, murals and other features being developed. An artist-in-residence is to be asked to come and work with the pupils.

Planning and finance

Pupils, parents, teachers and non-teaching staff were all involved in planning the project and all have an ongoing interest and involvement in maintenance and future plans. The school did not have any outside assistance, apart from parental involvement and local community help with



Pricking out marigolds in the quadrangle greenhouse practical work. Funding for the project has come from school and PTA funds, with some support from a local nursery and the local authority Grounds Maintenance Department. It has been a fairly low-cost project to date, with an outlay of only £400.

Problems

A practical problem encountered was that the site proved to have poor quality soil. This made growing anything quite difficult and the school lost some plants through drought during the hot, dry summer of 1995. But the main difficulty, and one experienced by secondary schools generally, is the lack of committed time that staff can give to the project.

The benefits

The improvements have provided the school with a quiet area for both staff and pupils which is pleasant and relaxing and which can also be used as an 'outdoor classroom'. It has had an impact on the ethos of the school as a whole, showing pupils that they have the power to improve and change things themselves. It is difficult to assess whether the provision of a quiet area has significantly reduced behavioural problems, though the garden does appear to be well used. It is hoped that, in time, there will be an upward trend in terms of improved relationships and peer group co-operation. The project certainly provided an opportunity for the pupils to work together as a team, and this made a valuable contribution to their personal and social development.

Advice to other schools

- It is strongly recommended that secondary schools take a look at their grounds and assess how they are being used, or not used, as an educational resource.
- Projects such as the courtyard garden cannot be undertaken single-handedly by any one person, but need the commitment of the school community.
- Start in a small way, set up a management structure to take things forward and never underestimate the maintenance requirements of the scheme.

St Andrew's Primary School, Dumfries

The school

St Andrew's Primary School is a pre-1930s building situated in the heart of Dumfries and surrounded by housing and industry. The school grounds were essentially all tarmacadam before improvements began in 1994. There are 177 pupils on the school roll.

How the project started

The school grounds project began in April 1994, when pupils at the school in primary three and primary six entered a competition, organised by the Scottish Wildlife Trust, to design a school wildlife garden. A senior teacher in the school, Patricia O'Neill, decided it was just the sort of challenge her primary six class needed. She felt it would give a sense of belonging and ultimately a wonderful feeling of achievement to a class that had come to be regarded as 'troublemakers'. The class of thirty-two children had lost respect for themselves and their school; they needed to be involved in something positive and stimulating to show that they were important and valued in the school.

Children enjoy the painted playground games at St. Andrews Primary School, Dumfries.

When their entry won the competition the project took off from there. Initially, a wildlife garden with a pond was created, then other improvements followed, including a herb garden, a bird-table and nesting-boxes, murals, painted playground games and planters around the grounds and on the school gates.

Management and organisation

The class decided that the best way forward was to set up their own business, which they called 'The Heatherheads'. They worked out a management structure, with business cards for office bearers and a bank account. They held regular meetings to move the project forward and they drew up plans and presented their proposals to a specially arranged meeting of the School Board, which they themselves organised and chaired. They organised their own fundraising events and wrote numerous letters seeking donations and help in kind.

When the class decided that playground areas needed brightening up with painted games, they surveyed all the children in the school to get their ideas, then they wrote letters enquiring about permission, paint suppliers and equipment. Next they ordered the paint and, with minimal help from parents and teachers, they painted markings for the games. A little empowerment certainly went a long way with this class of entrepreneurial pupils.

The results

In 1994 the project won the Keep Scotland Beautiful 'Scotland in Bloom Award', which meant that a specially designed trophy was held in school for a year. The children were thrilled about winning the award and the organisers commented on the enthusiasm and politeness of the children, something that would have been unheard of six months earlier. The children were noticed smiling more often and they started to enjoy coming to school! Their behaviour generally improved and this was noticeable to all in the school.

The appearance of the school was enhanced and all the other pupils and teachers wanted to become involved in the project. All classes now take some part in the use, development and management of the school grounds. The wildlife area is used as a resource for teaching numerous aspects of the 5–14 curriculum, in particular Environmental Studies. The improvements have provided an excellent vehicle for a practical, creative and active curriculum in many areas. For example, the design of outdoor furniture has been a useful Technology project, involving pupils with some parental support.

Pupils make valuable use of the wildlife garden for curriculum study.

Finance and support

The whole project has been a relatively low-cost enterprise, with much support being received in the form of donations and help in kind. Some outside help has been provided by the local ranger service. The project has also afforded the school an opportunity to improve local community and business links and, in fact, they have developed a good relationship with the local Education Business Partnership officer.

In another initiative, pupils wrote to ScottishPower, who have a vehicle and supplies compound next to the school. This compound presented an unsightly view and the pupils wanted to find out whether the company would object to the planting of climbing plants along the surrounding fence. They received a positive reply along with a cheque for £40 towards the cost of plants. The pupils have also grown numerous plants themselves from seed.

Problems

Vandalism of the scheme occurred on one occasion, but the pupils involved in the project were so incensed by the damage done that they made an effort to find out who had caused it and encouraged the local police to sort out the problem. It certainly taught them a useful lesson about respecting other people's property.

A final word

This scheme, started by one teacher and one class, inspired the whole school into action. When 'The Heatherheads' left the school, they left behind a legacy of enterprise and hard work and their names will be remembered and respected by all who follow in their footsteps.

Advice to other schools

- Ensure the enthusiasm of children and staff.
- Make use of outside help and expertise.
- Allow the children to make decisions about how the project should develop.
- Involve parents and the local community as much as possible.
- Consult the whole school community about what is needed.
- Look at the existing conditions and develop them appropriately.

3

Planning Changes

Key points in planning changes

- *Identifying needs involves pupils, teachers and the wider school community.*
- *Discussing possible solutions allows further consultation to take place.*
- *Drawing up plans enables proposals to be understood and work to be phased.*
- *Practical issues such as maintenance, working with groups and the local community, vandalism and fundraising need consideration during the planning stage.*

The planning stage of a school grounds project is always a crucial part of the improvement process, though, sadly, it is too often rushed or overlooked. As with the initial survey stage, it provides a multitude of possible curricular activities. It is the stage when the children's survey findings are analysed in order to assess the opportunities or the constraints presented by a particular site and to suggest possible solutions to any problem areas. Needs can then be established by discussion between everyone involved about what they want to be able to do in the grounds.

IDENTIFYING NEEDS

The sorts of issues most commonly identified by surveying pupils' views of the school site include: poor school image, visual quality of the site, problems related to microclimates (for example, shady, sunny and windy spots), litter problems, dog fouling, bullying, playground accidents, parking and vandalism. The survey will also highlight inadequacies of service provision: for example, lack of quiet areas, lack of adequate play facilities, little provision for wildlife, no seats, poor reception for visitors to school.

These issues offer an ideal opportunity to develop not only an awareness and appreciation of the problem and a knowledge and understanding of all the factors and viewpoints, but also a concern and motivation to try to resolve the problem by direct action. This is education about, in and for the environment at local level: it is a good example of the popular slogan 'think globally, act locally'. Pupil participation in the process of formulating a policy for change and working with adults in the management process will help raise the self-esteem of the children. It will also help in fostering the development of empowerment, making children aware that they are important and that their ideas matter.

The case study of St Andrew's Primary School highlights this matter of empowerment very well. Before the project started, the children involved in it had lost all respect for themselves and were regarded as troublemakers. Their subsequent involvement in the school grounds project made them realise that they were important and that, if they wanted to, they could make changes. The benefits in terms of self-esteem were very apparent.

A local artist works on new gates for the entrance to Park Place Nursery School, Dundee.

Surveying the grounds often plays a significant part in identifying particular needs or problem areas to be addressed. At Park Place Nursery School, Dundee, it was at a Parents' Group committee meeting that the subject of the school entrance was raised. It was not at all welcoming to children or to visitors to the school and parents felt some planting was needed to brighten it up. It was also suggested that a piece of artwork could be considered as an additional enhancement feature. The project developed and grew from there.

At Hyndland Primary School in Glasgow there were behaviour problems because of football dominating at playtime. A sloping football pitch with no surrounding fence meant that the ball often rolled off the pitch and interfered with other play activities going on nearby. This prompted the school to improve the sports facilities

The newly designed wall at Park Place Nursery School, Dundee.

and to look at the whole site with a view to developing play opportunities. Drainage was improved on the football pitch and a new fence put in and these changes have gone some way to resolving the initial problems.

Other needs are likely to include issues related to the formal curriculum, to play and to less tangible elements such as the feelings evoked by a site. Some typical needs have already been discussed in Chapter 2.

DISCUSSING POSSIBLE SOLUTIONS

Once the initial survey has been carried out, as outlined in Chapter 2 and all the needs of the school community identified, as described above, key issues and areas of concern can then be identified and placed in order of importance. This will entail a good deal of discussion and consultation to ensure that everyone has a say in the process of change and that nothing is overlooked. Schools have found different ways of involving the whole school and community at this crucial stage. Some schools, for instance, have held an open day, exhibiting the children's work and ideas and asking for comments. Others have drawn up a plan of the proposed changes and displayed it in the school foyer. Other possibilities are model making and 'Planning for Real' type exercises.

Broughton Primary School in Edinburgh involved a local artist and a landscape architect in the planning process. They both worked closely with the school's pupil council to transfer the children's survey findings and ideas for a better playground into a plan of action for the grounds. The school launched their plans in May 1995, on School Grounds Day, but lack of funding has held up progress on the developments.

Hyndland Primary School in Glasgow had help from an architect and a landscape architect to undertake a 'Planning for Real' exercise, a process often carried out by planners when consulting with the local community to avoid imposing unwelcome changes. It resulted in teachers, parents and pupils making a large-scale model of the school buildings and grounds based on the children's survey findings. The model was built of polystyrene, paper and cardboard and then painted. This enabled everyone to see the site in three-dimensional form, highlighting opportunities for improvements and also any constraints on the site. One such constraint was the discovery of a huge sewerage pipe running right through the school site, which might cause problems. The model was also exhibited in the local library for a short time, along with some of the children's drawings and ideas for change, to enable the local community to have an input to the scheme.

'Planning for Real' at Hyndland Primary School, Glasgow.

DRAWING UP PLANS

A plan of some sort will undoubtedly be required to present findings and proposals for change to all those interested and involved. It will also be needed when seeking permission from the Education Authority, and may be useful when applying for funding, along with an outline cost of the proposed changes. In fact, some competitions and grants available for schools encourage the building of models or the drawing of plans as part of the entry requirement. The Dundee Parks Department Schools Wildlife Garden Competition, for example, requires nursery and primary schools entering the competition to design a wildlife garden suitable for their own school site. They have to submit a plan, a model and a portfolio of work relating to the design, construction, maintenance and future use of the area. Some of the

Wildlife garden model. Dundee school's competition, 1995.

resulting models and plans are excellent and provide an immediately visual means of getting the message across to others in the school community.

Plans need not be professionally drawn, as this can add a huge amount to the cost of the proposals. However, schools are generally very industrious at getting outside help at this stage, often making use of a parent with design or drawing capabilities, or a local authority landscape architect, who might be persuaded to get involved with the project. St Elizabeth's Primary School in Hamilton, South Lanarkshire, for instance, had help from a local authority landscape architect to draw up their proposals for the school site. The whole of the site was considered and a large plan was prepared that tackled improvements in a series of phases. This then meant that work could take place in stages, as and when school funds and staff time permitted.

Other ideas for getting the proposals across to everyone concerned might include a computer model showing an action plan for change or a school drama or similar event to interpret the ideas. These methods of presentation may be more time-consuming to organise, but often people have difficulty in identifying with a two-dimensional plan and find models and visual interpretations easier to comprehend. The end result will be that everyone has a better understanding of what exactly is being proposed, and this is most important if a project is to be successful.

PRACTICAL ISSUES

It is at the planning stage in a project that certain practical issues, which will undoubtedly affect the project as a whole, need to be considered. When deciding what solutions might meet your overall objectives, the following issues need to be taken into account:

- getting permission;
- funding;
- services (pipes, cables, underground/overhead wires, etc.);
- maintenance implications;
- space limitations;
- what help is available;
- possibility of vandalism.

All of these matters could affect your proposals in some way and might seriously limit what you are able to achieve. Remember, too, it is often best to start small and phase the work over a number of years. This was the policy adopted by Wardie Primary School in Edinburgh, which has a ten-year plan for improvements. No doubt the plans will be reviewed and extended after the initial ten years are up.

Wardie Primary School in Edinburgh has a ten year plan for improvements

Maintenance

The maintenance of school grounds improvements is something that should be considered from an early stage in the scheme. It is usually the Grounds Maintenance Department of the local authority that is responsible for maintenance contracts in school grounds and it is therefore enormously helpful if schools build up good relations with this department. It is crucial to inform them of any proposals for change at the planning stage of the project. This can help to avoid such problems as 'wildlife' areas being cut or sprayed with herbicide, such as happened at Currie High School in Edinburgh. The school lost its 'wildlife meadow' when it was mown by contractors who thought it was 'just weeds'! There must be other similar horror stories all over the country.

Improvements at Bonnington Primary School, Edinburgh.

Teachers often feel that maintenance is something of a burden, and this tends to be the case where it has not been given adequate consideration. But equally it can provide an ideal opportunity for a structured management regime, involving the whole school. Scottish schools have tackled the maintenance issue in a number of different ways, including setting up a school grounds maintenance policy, appointing 'green rangers', who are in charge of the site, and involving the local community in the tasks.

At Bonnington Primary School and Prestonfield Primary School, both in Edinburgh, a school grounds maintenance policy has been adopted. This ensures that any area of the grounds not covered by the local authority grounds maintenance contract (those areas that have been 'improved' or altered from the original contract) is maintained by a class and their teacher. Each class have an area of responsibility and it is their role to ensure that any necessary maintenance is carried out at the appropriate time. At Prestonfield Primary, for example, primary one and two look after the tree nursery, collecting native seeds and sorting them, planting out, weeding and watering. The primary sixes look after one of a number of raised beds and also the mini woodland area. The school also has an anti-litter policy, to encourage the children to take a pride in their grounds.

In both schools, the policy is written down and is reviewed on a regular basis to ensure adequate provision has been made in each area. During the summer break some maintenance may be carried out by pupils, parents, teachers and the janitor, but on the whole things are left until the start of the autumn term. A real 'blitz' is then needed to get everything sorted and looking its best as winter approaches.

A different way of organising maintenance of the improvements can be seen in action at Currie High School, Edinburgh. A retired, former member of staff, Mrs Rowlie Walton, is funded jointly by the school PTA and the school budget to act

Nature trail in the Curriehill Strip Woodland, Currie, Edinburgh.

as a 'Campus Environment Ranger'. She has a group of pupils, designated 'Green Rangers', who help to maintain the grounds and a strip of woodland, known as Curriehill Strip, adjacent to the school. There is also a school committee, the Curriehill Strip Management Committee, which oversees management and maintenance of the whole school campus.

Provided that maintenance is taken into consideration from an early stage in the planning of a school's project, then a scheme can be worked out with minimum maintenance in mind. This is what teachers and pupils did at Cauldeen Primary School, Inverness. Their wildlife area was kept free of weeds by the use of black plastic, donated to the school by a local farmer. The plastic sheeting was laid on the ground and covered in small stones to smother the weeds. Planting has been carried out by making holes in the plastic. This serves to keep weed growth down, whilst retaining warmth and moisture in the soil.

Minimum maintenance wildlife garden, Cauldeen Primary School, Inverness.

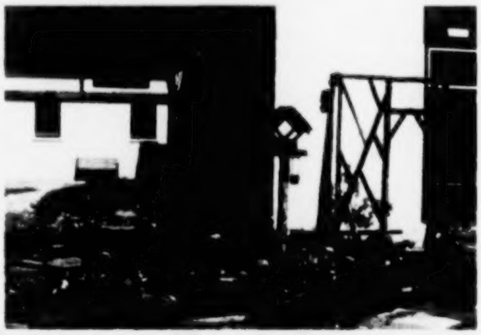
An important factor in maintenance considerations is to look carefully at the site conditions and work with what you've got. Maintenance can be unnecessarily complicated if a school chooses to make inappropriate changes for a particular site. This might be because of bad planning, or even ill advice, but usually problems can be rectified.

At Evie Primary School, Orkney, staff and pupils learned about maintenance issues the hard way. Looking after their formal garden and rockery takes up much time, probably because the garden was badly designed and sited for maintenance in the first place. Teachers recommend the benefits and ease of having a wilder area with trees and shrubs, particularly on Orkney, where trees are few and far between. They are certainly proud of their trees, which provide an invaluable curriculum resource, but they do not recommend creating a more formal garden area because of the amount of weeding and watering that is required.

Pupils at Evie Primary School, Orkney, study trees in their wild area.

The long Islay winter, when doing anything on site can be difficult, was a key factor in the improvements planned by Islay High School at Bowmore, Argyll and Bute. However, despite adverse weather for much of the term time, the school managed to involve parents, pupils, teachers and local farmers in their project, which has created a valuable teaching resource, improved the outlook of the school and generally acted as an ethos builder.

At Glenborrodale Primary School, Ardnamurchan, Highland, a variety of habitats and features have been created in the school grounds. These include a little waterfall and pond, a vegetable plot and a sandpit. The children have not let harsh weather and site conditions



Inner courtyard, Islay High School.

Pupils at Islay High School admire a formal garden area.

hamper their progress. Even with animals wandering off the hill into the grounds, they have made the most of what they have, attempting only those improvements that they felt would be appropriate for the prevailing conditions.

Working with outside agencies

A school grounds project can provide the ideal opportunity for a school to make useful contacts in its local area and to work with outside agencies and organisations. This could be local businesses, who might be approached for help in kind or in sponsoring a project, or it might be the local ranger service or Scottish Wildlife Trust team, who might be asked for help with the planning and implementation of the project. Equally, it could be the local secondary or high school or college of further education, whose technical departments might be able to provide assistance with projects. The benefits of schools working with outside agencies and groups can be considerable, and, increasingly, businesses and industry also are recognising that they can benefit from working in schools with young people. For example, training opportunities can be provided and work experience programmes set up. A number of education-business partnerships have been established to help improve links between schools and industry and commerce.

Mossbank Primary School in Shetland had help from the Construction Industry Training Board in the form of an architect and building services to help with the design and construction of the school's 'quiet area'. They also had advice on the selection and planting of trees from the Shetland Amenity Trust. The project was started in 1993 and it is now recognised as a real benefit to the local community, where community resources were previously lacking. The school has also received an Eco Schools Award, organised by the Tidy Britain Group (Keep Scotland Beautiful), for its efforts to improve opportunities for environmental education.

The quiet area, Mossbank Primary School, Shetland.

Children at Blackfriars Primary School, Glasgow created a wildlife garden in the school grounds, working with two professional firms, Russell Landscapes and The Donald Edwards Partnership. A derelict area of the grounds was

Children working in the wildlife garden at Blackfriars Primary School, Glasgow.

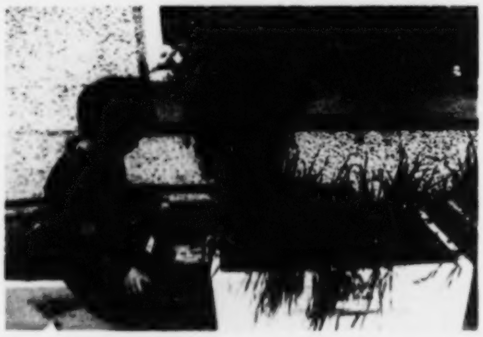
transformed into a garden. This has been commended for the style of its construction, the use of readily available materials and appropriate plant material and for the way in which the school children were involved from start to finish. The project won a Special Schools Award in the British Association of Landscape Institute's Awards, 1995.

Discussing school grounds development at Cranloch St. Andrews's Special School, Moray.

The establishment of a wildlife garden in 1991 at Linlithgow Primary School, in West Lothian, came about as a result of a local canal bridge development. The contractors working on the bridge were asked, and kindly agreed, to clear and fence an area of land between the canal towpath and school playing field. This was subsequently developed into a wildlife garden. The school has also worked with a number of other outside agencies, including BP (it is a BP link school) and the local ranger service, and funding and help in kind have been secured through a number of sources, including a grant from the former Lothian 'Grounds for Awareness' Scheme.

Teachers and pupils at Cranloch St. Andrew's Special School, Elgin, Moray, managed to obtain financial assistance and support from a range of outside agencies. These included the CITB, the local RAF, 'Trees for Moray' scheme, a local Enterprise Company and Scottish Natural Heritage (SNH). They also received practical help from two local companies to create a wildlife area in the school, which now provides a useful formal and informal curriculum resource.

The most successful approaches for help are generally those made by the children themselves. Some schools have been enormously successful in obtaining all sorts of contributions, ranging from free barrels to use as planters, and free trees and shrubs, to sponsorship in the order of many thousands of pounds. Many schools adopt the view that 'If you don't ask, you don't get' and some have been so successful that their project costs have been kept to a minimum. A classic example here is High School Yards Nursery School, Edinburgh, who have managed to keep costs to a minimum by reusing, recycling, begging and borrowing wherever possible. In the first seven years of the project only £500 was spent and much support was received in the form of donations of materials and help in kind.



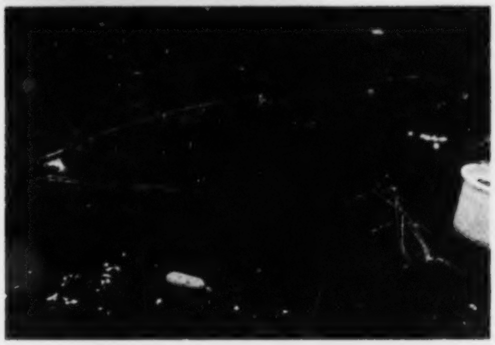
Old sinks make ideal planters. High School Yards Nursery, Edinburgh.

Involving the local community

The local community can play an important and enormously helpful role in any school grounds project. For instance, help can often be provided for manual jobs, such as heavy digging, that children may find difficult. People's skills and expertise can be made use of: there may perhaps be a local architect or a supplier of trees near the school. Pupils, parents, teachers and non-teaching staff can all benefit from working together on a community project that involves as many of the local community as possible. Another advantage is that vandalism can be kept in abeyance if local people are prepared to keep an eye on the school and alert the police if any incidents arise.

The school grounds project at Inverbrothock Primary School, Arbroath, Angus was set up for a number of reasons, but one of the main aims was to encourage parental involvement and to improve the grounds as a focus for the community. The site is visible and accessible to the public

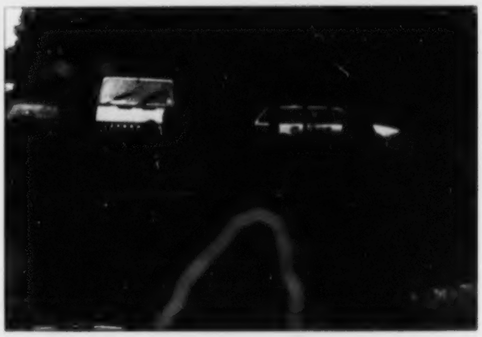
This way to the Outdoor Classroom at Inverbrothock.



The Outdoor Classroom, Inverbrothock Primary School, Arbroath.

and the school now has a welcome garden for visitors or parents waiting to collect children. The project has provided a valuable opportunity for the PTA, children and staff to work together in partnership to enhance the environment.

A school which has managed to secure enormous support from the local community is Sauchie Nursery School, Sauchie, near Alloa, Clackmannanshire. The planning of the project started in 1995 as a result of this local authority nursery school wanting to make better use of its grounds to celebrate its twenty-fifth anniversary in 1996. Subsequently the school learned that it had been lucky enough to be accepted as one of the Beechgrove Garden's 'Hit Squad' Community Corner projects. The plans are to develop a piece of derelict land in the school grounds, made vacant when some old school buildings were demolished, into a more interesting place for the children. There is to be a friendship circle, a rainbow bed, a water feature, a touch corner, log and rock piles, compost heap and wildlife beds. Parents, pupils, staff and, in particular, the local community are involved in the project. Local businesses and suppliers are also helping with support, funding and materials to make this a real community project. SNH, SWT and volunteers from the nearby Glenochil Young Offenders Institution are also involved in the project.



Improvements take shape at Sauchie Nursery School, Clackmannanshire.

The local community, staff and pupils of Webster's High School, Kirriemuir, Angus have been involved in an extensive project since October 1991, improving not only the school grounds, but also an area of land close to the school. The local community was kept fully informed at all stages of the planning process and invited to actively participate in the implementation of the project. Members of the community help with fundraising and maintenance and there are local councillors on the Woodland Management Committee. Maintenance is carried out by the school's Conservation Society and the Duke of Edinburgh's Award Scheme group after school hours.

Pupils carry out maintenance at Webster's High School, Kirriemuir.

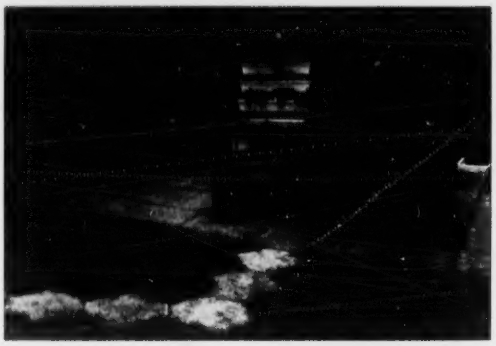
Dealing with vandalism

Unfortunately, vandalism is a common problem faced by many schools, particularly in urban areas. It generally happens as a result of boredom, but very often it can be overcome. It has been found that if the whole school community is involved in the improvement scheme and a sense of ownership develops, then vandalism is less likely to occur. Involving the pupils is crucial. Where pupils' views and ideas are valued and they have a part to play in the project, then they are more likely to develop a sense of pride and responsibility in their school and negative behaviour, such as vandalism, is less likely to occur from within the school.

Pupils who were involved in their school grounds project at St Andrews Primary School, Dumfries, were so incensed when children from outwith their school vandalised part of their project that they contacted the local police themselves to help sort out the problem. They found out who the culprits were and gave them a good talking to. The teacher involved with the children is convinced that they are now less likely to vandalise themselves, having had to experience the heartache and upset of seeing their own hard work undone in seconds.

Children enjoy new play equipment at Blackfriars Primary School, Glasgow.

Blackfriars Primary School is situated in the Gorbals area of Glasgow. Plans for improving the school grounds started back in 1991, and since then, a number of areas have been developed, habitats created and play features improved. The Headteacher, Mrs Marjorie McLennan, is proud of the fact that the grounds have suffered no vandalism at all, despite the location of the school, in what can only be described as a wasteland, once surrounded by huge tower blocks of flats. She puts the success down to the involvement of the whole school and community in the project, including local people and businesses.



Robust furniture design, Kelvin School, Glasgow.

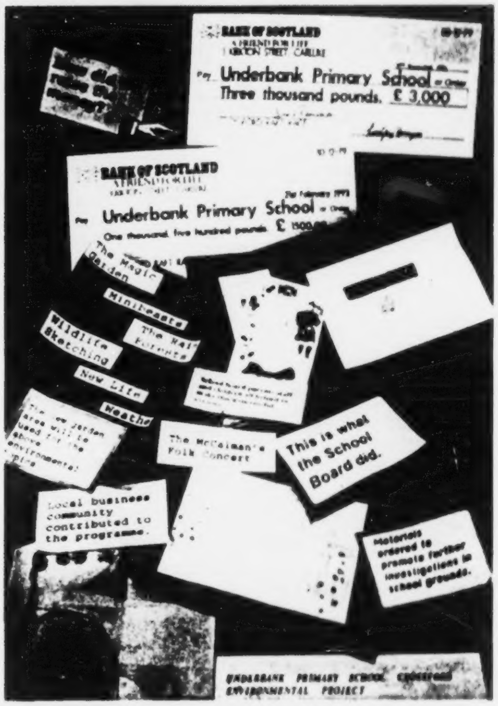
Vandalism can also be kept to a minimum if careful thought is given to it in the design stage of the planning process. If vandalism is a problem in a particular area, then more robust materials might need to be used. For example, wooden seating can be prone to both arson attacks and graffiti. Several urban schools have got round this problem by using brick and only a minimal amount of wood, or even all stone, in their seating design. In addition, features might need to be bolted down or even moved indoors at night-time to prevent theft or damage. If damage does occur, then it is wise for the school to deal with the problem as soon as possible. Once an area starts to be targeted, if it is left in a state of disrepair, this seems to encourage further vandalism, so quick action is important, no matter how demoralising the situation might seem.

Fundraising

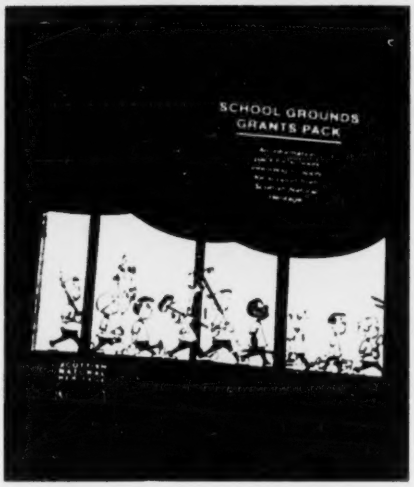
Schools report different rates of success when it comes to raising money for projects in the school grounds. Some are more successful than others, perhaps as a result of the methods they use. The most successful projects seem to fall into one of two categories. Either they incur very little cost, because of industrious teachers and parents reusing and recycling various materials, such as at High School Yards Nursery School, Edinburgh, or they are very successful at fundraising, such as at Underbank Primary School, South Lanarkshire and Blackfriars Primary School, Glasgow.

Blackfriars managed to raise a very large amount of money (approximately £45,000 over a five-year period) for their project. About £1500 is raised every year from different sources by the very active and involved parents, and the school has had support from various agencies and organisations, including Scotrail, Marks and Spencer, the local Junior Chamber of Commerce and the Gorbals Initiative.

Similarly, Underbank Primary School was very successful at raising nearly £8000 locally for their project. They organised a number of activities, such as a folk concert (selling advertising space in the programme to local businesses), and they also obtained donations, one of which was a gift of £2500 from the local Crossford Raft Race Committee.


BANK OF SCOTLAND
Underbank Primary School
Three thousand pounds. £ 3,000
BANK OF SCOTLAND
Underbank Primary School
One thousand five hundred pounds £ 1500
The Magic Garden
Minibeasts
Wildlife Sketching
New Life
Weather
The McCalman's Folk Concert
This is what the School Board did.
Local business community contributed to the programme.
Materials ordered to promote further investigations in school grounds.
UNDERBANK PRIMARY SCHOOL CROSSFORD ENVIRONMENTAL PROJECT

Successful fundraising at Underbank Primary School, Crossford.



Scottish Natural Heritage's School Grounds Grants Scheme.

There are a number of different ways in which schools can raise money for their projects and some of these have been highlighted in the case studies. Scottish Natural Heritage offers schools the opportunity to apply for funding through its School Grounds Grants Scheme, and if schools meet the relevant criteria, they are usually successful. Some local authorities also run partnership schemes that provide funding for projects. The former Lothian Region's 'Grounds for Awareness Scheme' involved SNH and Lothian and Edinburgh Enterprise Limited (LEEL) Then there are numerous competitions and awards, such as Keep Scotland Beautiful's Junior Greenfingers competition and the BT/LTL Urban Challenge. Other possible sources of funding include private sponsorship from local business or industry, and trust funds and other charitable organisations. Many schools have found that help in kind, such as free materials, the loan of machinery or the gift of professional time, can be just as valuable as actual money.

BEST COPY AVAILABLE

Cauldeen Primary School, Inverness

The school

Cauldeen Primary School is situated in the Hilton area of Inverness, surrounded by a large housing scheme where the majority of the pupils live. It is a primary school with a special educational needs unit on site. The school was built in 1968 and the current roll is approximately 220. The school grounds are fairly extensive and consist of some tarmacadam areas and playing fields. Developments in the grounds now include a wildlife area, a garden of the senses, areas of tree planting and painted playground games. A Victorian garden has also been created for the local community just adjacent to the school and there are future plans to introduce a picnic area with seating for pupils.

How the project started

The first phase of the project started in 1992, when a local councillor approached the headteacher to see if the school would be interested in adopting a piece of 'problem' waste land adjacent to the school. The waste land had become a dumping ground for rubbish and, increasingly, was being used as a smoking and drinking den by youths. The headteacher agreed that the school would take over this ground to improve the area, to benefit both the pupils and the community, as part of the school's twenty-fifth anniversary celebrations in 1993. The dilapidated fence was removed and the area became incorporated into the school grounds. Since the development was seen as a long-term project it was agreed that as many pupils as possible should be involved in it.

Planning

A planning committee was established to take the project forward. This included representatives from all classes and teaching and non-teaching staff. The area was first cleared of rubbish, then professional advice was sought on what to do with the land. The Forestry School was approached for advice about what to plant and how to plant it. Plans were drawn up and the wildlife area started to take shape. There was to be a space for tree planting, a marsh area and an area for wildflowers, weeds, dead wood and grasses.

Maintenance was to be kept to a minimum by first covering some of the ground with a large sheet of black plastic. This served to suppress weed growth and also to keep the soil moist and warm. A local farmer donated the plastic and also gave the children useful advice. Part of the ground was left uncovered because the children wanted to encourage wildflowers and 'weeds' to grow for insects.

A grant from the Community Council (£350) paid for some of the trees and shrubs to be planted; others were donated by parents, friends and local businesses. The school funds were also used to cover incidental expenditure.

The Macleod Nature Area

The wildlife area was named the Macleod Nature Area in memory of the first headteacher at the school. It was officially opened in June 1994 by Councillor Sheila Mackay and Mrs Macleod, the headteacher's widow, to celebrate the school's twenty-fifth anniversary. Many native trees and shrubs had been planted, including twenty-five silver birch trees. In addition, the planned marsh area had been created and patches of heather, buddleia, nettles and thistles planted to encourage wildlife. Bird-boxes and bird-tables were also erected and some dead wood left lying to create a haven for minibeasts. The area is now used as a valuable curriculum resource and has helped to improve relations with the local community, who also make use of it.

The Macleod Nature Area, Caulden Primary School, Inverness.

Further improvements

Cauldeen school grounds also has a Garden of the Senses and painted playground games and, just adjacent to the school, the children have created a Victorian Garden for the local elderly people.

The sensory garden was created at the front of the school in 1993 by the school's special educational needs unit. There are seven to ten children in the unit at any one time and integration is seen as part of everyday life. The staff and children were involved in creating the garden and they are also responsible for maintaining it. The garden is divided into seven areas; five of these correspond to the five senses, with an additional bed of variegated plants and another for shade-loving plants. The children's efforts were rewarded with a prize of £50 when they were runners-up in the Junior Greenfingers Competition organised by Beautiful Scotland in Bloom in 1994. Future plans for this area include a path to enable wheelchair access and a patio with picnic benches for the younger children. The garden is for the benefit of the whole community.

Special needs pupils relaxing in their sensory garden at the front of the school.

The children designed and helped to paint the playground games and they thoroughly enjoy using them. They were also involved in designing the Victorian Garden just outwith the school for local senior citizens. They obtained help from the former District Council and funding from the Soroptomists, and once initial plans were drawn up, they consulted with the residents to make sure they were happy with the proposals. The children then helped to implement their plans and they are also involved in maintaining the area.

Cauldeen Primary School, 'Garden of the Senses'.

Funding and support

The projects have all been of relatively low cost and, to date, the total amount spent has been approximately £2000. The school has been lucky to get much help in kind from the local community and the local authority, as well as donations of plants and materials from businesses in the area. They have found that it is often much easier to secure materials than money for such projects.

Management and maintenance

The school's policy is to look at what they think they can manage and to take on only what they know they will be able to maintain. The headteacher's advice to other schools is to start on a small scale and take things from there. Maintenance is the major concern, but the children and the local authority keep the areas under control, and during the summer break, the janitor, who lives on site, does what he can to keep the area looking its best.

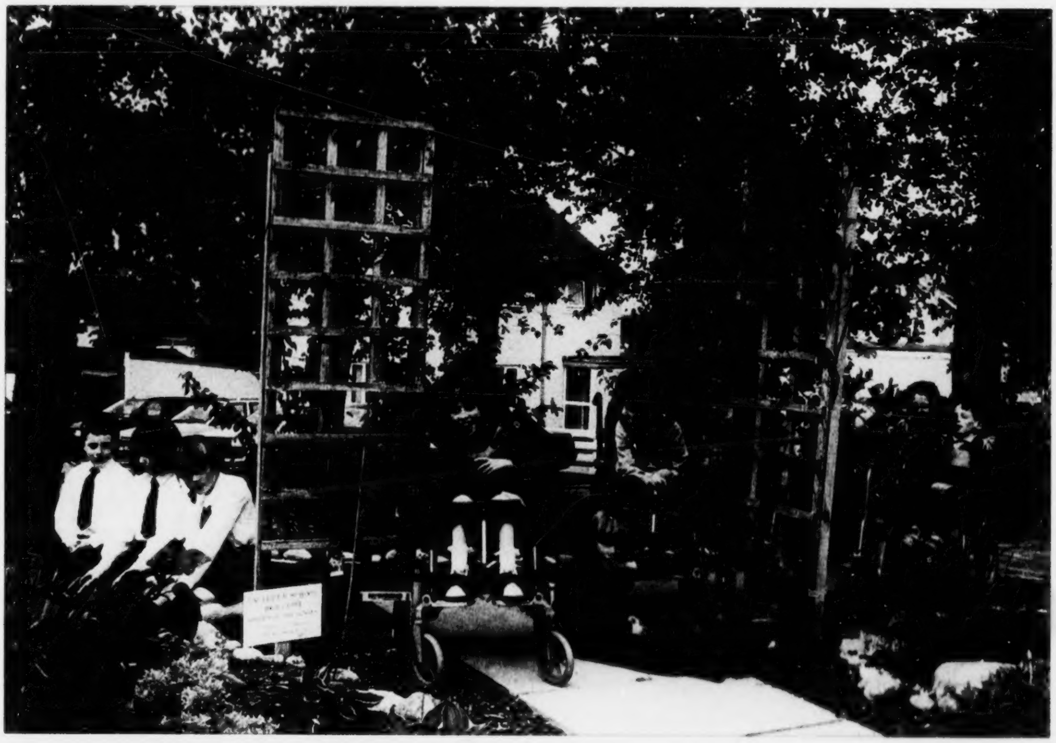
The benefits

The various projects undertaken have provided an opportunity for the children to work together and take responsibility for a worthwhile cause. The school has consequently developed good relations with the local community and is seen as a 'wee haven in the community'. The children have been successful in winning a number of awards for their efforts, including the Tom Johnston Memorial Award from HydroElectric for a project which benefited both environment and local community. They have also produced two leaflets on the various developments in the grounds for the benefit of parents and visitors to the school.

The children's attitude to the local environment has changed. Staff report that there is less litter dropped and the children enjoy the responsibility of looking after these areas. A valuable curriculum resource has been created, whose potential will increase as the planting matures with time. The project is constantly changing and developing so that interest is not lost, and as the area develops, so its use will expand. The headteacher feels strongly that co-operation should be encouraged more than competition, and such a project provides the ideal mechanism for this to happen.

Advice to other schools

- Involve as many children as possible.
- Set up a committee to co-ordinate the project.
- Start on a small scale and develop the project in manageable stages.
- Make links with the local community.



Access to the environment for everyone at Caulden Primary School, Inverness.

Cranloch St Andrew's Special School, Elgin

The school

Cranloch St Andrew's School is a special school situated in Elgin, rural Morayshire. The school attempts to meet the needs of a range of youngsters for whom, for varying reasons, mainstream education is currently not appropriate. The school is late Victorian and at present has a roll of eighteen pupils. The grounds are made up of tarmacadam, playing fields, grass areas and a marshy area. The school has developed part of the site and now has a number of different wildlife habitats and a garden. An old toilet block has also been converted into a potting shed.

The project

Cranloch St Andrew's started developing its grounds in 1994, when teachers, with help from the local authority, decided to look at the site with a view to engaging the pupils in an appraisal of their school environment. The aim was to look at ways of developing and enhancing the school grounds. Pupils, teachers and non-teaching staff were involved in the planning, design and implementation of the project, with much outside support and help. It was seen very much as a long-term project involving all members of the school community, as well as parents, local industry, the local community and associated professionals. The whole project is cross-curricular, exploring numerous opportunities for learning outwith the classroom.

Areas of development include the creation of a market garden, two ponds and the erection of a polytunnel. The ponds were created to make use of an excessively large wetland area; the resultant pond life and increased bird life are of great interest to the pupils. Produce from the garden is sold within the school community to fund further planting and development, and donations of vegetables are regularly received by the elderly. The polytunnel is in its first year of use and, as well as allowing a greater capacity and a longer growing period, has enabled a wider range of crops to be grown. Pupils enjoy working with the visiting horticultural specialist. The grounds are now made use of by class teachers in a variety of curricular contexts.

Watering potatoes in the new polytunnel.

Support and funding

A great deal of advice and support was received from a range of outside agencies, including Scottish Natural Heritage , who provided advice and grant-aid for the project, Moray, Badenoch and Strathspey Local Enterprise Company and the Construction Industry Training Board, who both provided financial support, and the local RAF, who gave practical help. Christies of Fochabers and Robertsons of Elgin also gave practical support and the 'Trees for Moray' scheme provided some plants. To date, the project has cost approximately £2000, with much of this coming from grants and donations to the school.

The Scottish Wildlife Trust, working in tandem with some of the older pupils, is about to build a wooden walkway which will allow access to the wetlands. Once this has been completed, the school's intention is to encourage other local schools to make use of the wetlands for nature study.

Management and maintenance

The project has involved the development of part of the school site and this is maintained by the local authority with an input from school staff and pupils. Plans exist to develop the site further; for example, a play area is proposed for 1996 and another outhouse on site is to be converted for use by auxiliaries. The project is well supported in terms of professional advice. The steering committee includes a landscape ecologist, staff from SNH, and the local authority adviser in environmental education.

A new wooden walkway will give pupils access to the wetland area.

The benefits

The pupils use the area for informal activities at break and lunchtimes and it is also used more formally to teach Expressive Arts and to undertake nature studies. Pupils have a heightened awareness of their immediate environment and a greater respect for the environment generally. They have also gained new practical skills through being involved in the project. A sense of common purpose has been engendered amongst pupils and the project has helped to motivate, enhance self-esteem and educate those involved.

Advice to other schools

- Success in a project such as this comes essentially from taking well-planned, short steps.
- The project should be judged not purely on physical change but on the change in the young people whose lives it touches.

Webster's High School, Kirriemuir

The school

Webster's High School in Kirriemuir, rural Angus, was established in 1837 and moved to a new site on its present campus in 1954. It has recently been modernised and extended. The school has a roll of 725 pupils. The school grounds consist of predominantly maintained grass areas and stretches of uncultivated grassland. There is also a paved quadrangle within the site. The school stands in a prominent position, separated from the centre of Kirriemuir by a narrow valley through which runs the Gairie Burn. There are nearly two hectares of derelict fields sloping down to the burn and these were targeted for tree planting by the school to help re-create some of the semi-natural woodland that had been lost from the area. The slope is naturally divided into two by a path.

The project

The project at Webster's was started by teachers in October 1991. For the past two years, the school had been involved in a £5 million building development programme, so it then seemed appropriate to look at the school's surrounding environment. There have been three phases of development; phases one and two included the planting of deciduous woodland on the sloping, derelict fields adjacent to the school and phase three is a quadrangle development actually on site. The woodland was planted with a mixture of native trees and shrubs, including silver birch, ash and rowan on the upper slopes, with the moisture-loving alder and bird cherry beside the burn. Blackthorn and hawthorn were planted on the fringes to simulate a natural profile at the woodland edge.

Pupils plant trees on the slopes of the Gairie Burn.

The aim of the various schemes was to improve the school's image, to attract wildlife on to the site and, of most importance, to provide a curriculum resource for the school. Pupils, parents, teaching and non-teaching staff were involved in the planning and in the implementation of the projects. A number of outside agencies and the local community have also been involved.

Management and maintenance

A Woodland Management Committee, chaired by the school rector, was set up to co-ordinate the planning and implementation of the project. The committee had representatives from the school, including pupils and teachers, plus members of the local community, including local councillors. Following consultations with organisations such as the Scottish Wildlife Trust, Scottish Natural Heritage and the RSPB, a detailed scheme and costings were prepared. The local community council was kept fully informed of all proposals and was invited to participate in the implementation of the scheme. Maintenance of the improved areas is carried out by the Conservation Society and by pupils involved in the Duke of Edinburgh's Award Scheme and the special educational needs class.

A pond is created in the quadrangle garden at Websters.

PLANNING CHANGES

Future plans for the site include consolidation of existing projects, including maintenance work. It is also possible that some replanting of trees from phase two will be needed, owing to unforeseen problems. There has been some vandalism, with approximately 10 per cent of trees/tree tubes being damaged, and the picnic benches have also suffered some damage. Maintenance is occasionally difficult and some trees have been harmed by mammals and by poor weed control.

Funding and support

Advice and funding for the projects have come from Scottish Natural Heritage, while further advice and practical help have been provided by the local Scottish Wildlife Trust team. To date, the school projects have cost approximately £4000, the tree planting costing £2500 and the quadrangle garden £1500. The community helped with fundraising and plants were provided by Tilhill Economic Forestry and Scottish Woodlands Ltd.

The benefits

The various developments have provided the school with a curriculum resource used by several departments, but in particular by the special educational needs class. Pupils in this class have been actively involved in the planning, implementation and ongoing maintenance. The quadrangle garden, with seating, is a valuable addition to the school and has greatly improved the visual aspect of the site.

Advice to other schools

- Have clear aims underlying your project (i.e. identify why you want to do it).
- Get support from as many colleagues as possible. The support received from the school's rector was crucial in the success of this project.
- Try to involve as many people as possible, including the local community. It will greatly increase the impact and success of any project.
- Be realistic in planning what can be done.
- When seeking financial or material contributions, look at local sources. A local branch of a national organisation is more likely to support the project at local level.
- Be aware that projects need to be maintained and are not a 'one-off' exercise. An enthusiastic co-ordinator is required to ensure that initial interest does not lapse.
- Environmental competitions and awards are a good idea, but remember that the prime purpose of the project is to benefit the school and the local community.

Inverbrothock Primary School, Arbroath

The school

Inverbrothock is a state primary school situated in a suburban area of Arbroath, Angus. It is a relatively new school, built in the 1980s, and has a current roll of 296 pupils. The school grounds were essentially tarmacadam and grass before improvements were started. The project, which has been concentrated on part of the site, has included the development of a 'Welcome Garden', an 'Outdoor Classroom', various wildlife habitats, paths and social features. Murals and outdoor art are being considered as possible future developments.

How the project started

Improvements to the school grounds at Inverbrothock started in the autumn of 1991. Pupils and teachers instigated the project for a number of reasons, chief among which were the desire to provide a curriculum resource and to improve the appearance of the school. The project also became a means of encouraging parental involvement in the school and providing a focus for community input. The school is both readily accessible and visible to the public and this was felt to be an ideal opportunity to involve the community in a worthwhile project.

Planning, management and maintenance

Pupils, teachers and non-teaching staff were responsible for the planning stage of the project. Subsequently, parents and the local community became involved in fundraising, practical work on site and regular maintenance. Everyone also has an input into plans for future developments. Some site maintenance is carried out by the local authority, but the children have drawn up a rota for routine maintenance tasks. There is a 'Garden Gang' of children and parents who meet to develop the garden/study areas.

Future plans include a 'Map garden', with models of important local buildings; murals; a 'History Walk', which will include models and herbs in a rock garden setting in time-line sequence; playground games; an infant garden with a safe water feature, growing plots and practical study materials; a parent waiting area with a maze; outdoor staffroom; wall sundial; decorative pergola; log seating and other exciting ideas.

Support and funding

The project has cost the school about £1700 to date and funding has come from Scottish Natural Heritage, in the form of grant aid, and school and PTA funds. Further donations of materials and plants have been forthcoming from Gray Homes, Angus College, the former Tayside region's grounds maintenance staff, a local market gardener and parents and friends of Inverbrothock. At first, the school found it difficult to obtain money for the project, until SNH was approached. Advice and information has also been provided by the Scottish Wildlife Trust, Angus College and the grounds maintenance staff.

Local groups were approached initially to see how they felt they could be involved in the project and many were very enthusiastic. So far, no outside organisations have taken part in the work, apart from friends and parents of children in the school, but the project is still in the very early stages of development. There are extensive plans for the future, so it is likely that others will become involved at a later stage.

Pupils work with staff from the local authority to select plants for their garden.

Resolving problems

The school has found it difficult at times to muster enough practical help, but has received lots of free advice which has been extremely useful. Once the project got under way more help and advice became available. Sometimes conflicting advice was received when permission was sought to undertake different aspects of the project, but this did not deter pupils and staff.

The site itself proved a bit problematic, but they worked around the problems. For example, a boggy area of the site was developed into a pond, and the site's exposure to wind has been taken into account in the planning. Work experience was provided for local secondary school pupils and volunteers; it was hoped that this might reduce possible incidences of vandalism. Maintenance was considered at an early stage, in order to ensure that any improvements were not too onerous in this respect, particularly during the summer. One requirement was to leave access for the grounds maintenance grass cutters.

The benefits

The Outdoor Classroom has created a valuable curriculum resource, which has become a focus for the whole school and helped to develop an important aspect of Environmental Studies policy. The Welcome Garden is a pleasant resting area for visitors waiting for appointments and for parents waiting to collect children.

The planning of the whole project provided an ideal opportunity for everyone to work together to create a tangible outcome. It has also been an excellent vehicle for developing social skills and language, as well as affording many opportunities for investigations. Above all, it has allowed the PTA, children and staff to work in partnership to enhance the environment. The staff feel it is an ideal way to encourage environmental responsibility and develop stewardship.

Pupils watching for birds from their home-made "hide".

Advice to other schools

- Involve parents and the local community as much as possible.
- Consult the whole school community about what is needed.
- Look at the existing conditions and develop them appropriately.

Hyndland Primary School, Glasgow

The school

Hyndland Primary School is situated in the Partick area of Glasgow and is surrounded by housing of various ages and types. It has a roll of 413 pupils. The school itself was built in the 1880s and the site is split level with areas of tarmacadam, playing fields, grass, earth/mud and cobbles. There are steps between areas and much of the site is on a slope. The middle section of the school site is currently unusable. This is because a condemned annexe building was demolished in the summer of 1995, and until a new annexe is built, there can be no development on this area. This has also affected access to parts of the upper and lower playgrounds.

Planning and managing the project

Planning first started in September 1994. An old annexe building was due to be demolished and the Playground Development Group, made up largely of parents, took this opportunity to influence the design of the new school building and also the redesign of the school grounds. The parents felt strongly that the grounds should be made more stimulating and safer for the children. Improvements would also increase curriculum opportunities and enhance the school's appearance, and, it was hoped, might influence behaviour in the playground. Although plans were initially put forward by the Group, the whole school was subsequently involved in the planning and implementation of the project.

All improvements are co-ordinated by the Playground Development Group which meets fairly regularly to discuss different aspects of the project. The Group has set itself up as a charity to enable active fundraising to be undertaken. Parents, teachers and representatives from outside agencies, such as the Kilpatricks Project, are included in the group. A school open day has been organised, regular open meetings are held to inform everyone of progress and a regular newsletter, Playground Press, produced, again to keep everyone up to date with the project.

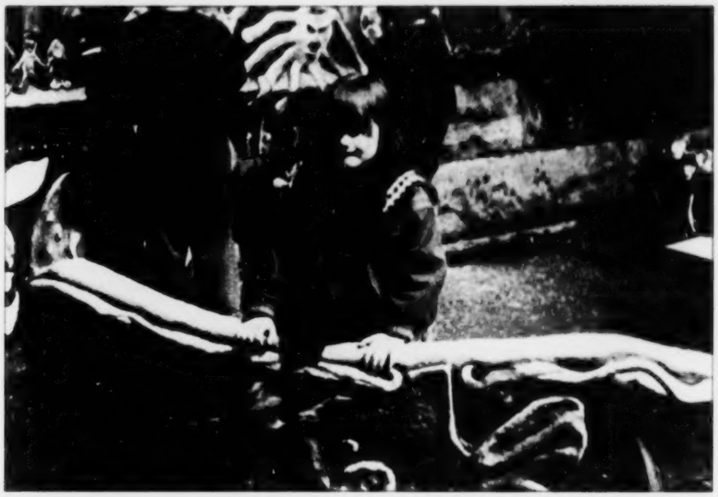
Parents, pupils and teachers were involved in a 'Planning for Real' exercise at the outset of the project. This resulted in the production of a large three-dimensional scale model of the school and its grounds, made out of paper, cardboard and polystyrene and painted. This enabled everyone to visualise the existing school site and to think about what changes might be considered to improve the site. Both the model and the children's drawings of ideas for improvements were displayed in the local library to ensure as much feedback as possible from the local community.

The first stages of improvements

The lower school playground, which was previously a car park and dustbin storage area, has been opened up for infants to play in and is used for teaching outdoors in the summer. Markings for games have been designed and painted on the playground and a mural has brightened up an ugly wall. The mural was designed by six- to eight-year-olds in the school and painted with the help of students from the Visual Arts Studio. Seating has been installed and is used both by the children and by parents waiting to collect children after school. A small garden area has been started and may become the responsibility of different classes to develop further.

In the upper playground, the football pitch has been improved with new drainage and fencing to stop the football 'escaping' from the field and annoying others nearby. Improvements have thus also served to placate tempers. In addition, the fence may be used as a temporary art gallery and outdoor stage set. Another feature is the establishment of a small tree nursery in the grounds. In 1995, the school won a silver Rosebowl Award for its environmental improvements.

Pupils help to weed the school's small tree nursery.



Infants enjoying the new fantastical ship sculpture which now brightens up the lower school playground.

More recently another major development has taken place. This is a fantastical ship sculpture, which is sited in the infant playground and was officially launched on 17th May 1996. Artist-in-residence Belinda Scott worked with the children on designs for the sculpture – a ship steaming its way out of the wall. The body of the boat is in relief and is fixed to the wall as a dramatic background, while the bow is set in the tarmacadam directly in front of it, with space inside for seating and imaginative play. A papier mâché model of the sculpture was created to enable others in the school to visualise the proposals. Funding for the project came from the Ripple Effect Trust, the former Strathclyde region's Education Arts Initiative, a community grant, a Glasgow district local grant and the Foundation for Sports and the Arts.

Future plans

The Group has plans to further develop the garden in the lower playground and to put in new bins throughout the site. There are also plans to create a nature/wildlife garden, to improve facilities for sports in the upper playground and to install seating around the football pitch.

Additionally, the school is excited about a major new development. This is the construction of an outdoor classroom. Students from the Mackintosh School of Architecture have designed a semi-enclosed outdoor space, using stone recycled from the old annexe building. This project is part of the programme for the Glasgow City of Architecture and Design, 1999, and the winning design was selected in May 1996. The outdoor classroom will be sited in the middle playground, once the new annexe is completed.

Funding and support

Finance to date for the various projects has come from school funds, private trust funds, the Local Residents' Association and the Community Council. The school has also received free logs from another local primary school and various donations in kind. Funding has not been easy to come by and the school is still looking for ways of raising money to develop the outdoor classroom.

The benefits

The developments at Hyndland have provided increased opportunities for play in the infant playground, as well as more social facilities and a general improvement in behaviour. A major benefit of the scheme has been the opportunity it has afforded the whole school community to work together on a very worthwhile project. Everyone also feels that the improvements made so far are attractive and pleasing to passers-by. Eventually, when the site is further developed, the school will have a number of valuable resources for both the formal and the informal curriculum.

Advice to other schools

- Discuss all aspects of the project with the whole school community.
- Encourage the local community to take an interest in the developments.
- Incorporate curriculum development into the planning.

Making Changes

4

Key points in making changes

- *Implementing plans allows changes to be made in stages.*
- *Making appropriate changes for the site and the school is more likely to lead to successful outcomes.*
- *Multi-cultural issues can be explored through grounds developments.*
- *Linking the development of grounds and the curriculum can benefit both.*
- *Special needs issues must be considered.*
- *Celebrating successes can involve a range of events and activities.*
- *Reviewing the changes that have been made is essential.*
- *Keeping good records, especially before and after a major change, is especially valuable.*

IMPLEMENTING PLANS

Once a school has spent a significant amount of time preparing its project and planning exactly what is to be done, it is always very exciting to begin the implementation stage of the scheme. Experience has shown that time spent on the planning stage is always worthwhile, and it is not uncommon for schools to spend one or two years on this. Starting in a small way and phasing work over a period of time is also strongly advocated by most schools whose projects have been successful.

High School Yards Nursery School, Edinburgh has made excellent use of a very small space.

Different sites offer different opportunities and scope for improvement projects and there have been some well-documented and innovative solutions to a variety of problems and site conditions. For example, what to do with the small, confined space that is of little use for anything? Or the all-tarmacadam, service-ridden site? Or the vast grass 'desert' that is so often wet or waterlogged and consequently out of bounds to children?

All of these problems can be overcome with appropriate planning, as the examples documented in this book demonstrate. At High School Yards Nursery School in Edinburgh, for example, the best possible use has been made of an extremely confined and difficult space to create a valuable curriculum resource. A wildlife garden has been developed on this former barren hilly slope perched on top of the Flodden Wall.

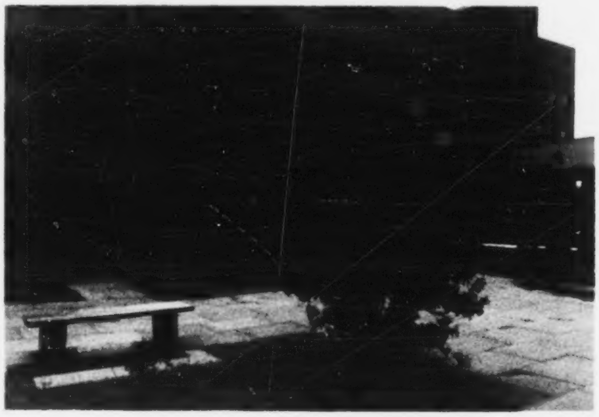
Another difficult site can be found at Broughton Primary School, also in Edinburgh. This Victorian school has a vast tarmacadam playground with so many mains services running under the playground area that digging up large areas of the surface was out of the question. Therefore, in planning their project, staff and pupils have had to think about building raised structures on the existing surface and breaking up the huge expanse of tarmac using different techniques and features.

MAKING APPROPRIATE CHANGES

Improving quadrangles

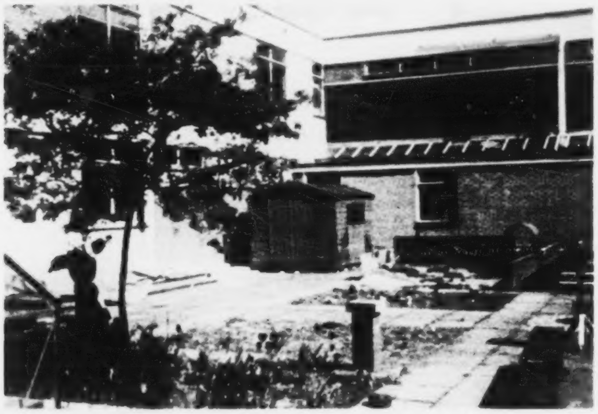
Many schools have inner courtyard areas or quadrangles that are often totally enclosed by surrounding buildings, thus providing a 'safe' area for improvements out of view of potential vandals. These areas might have concrete, slab or tarmacadam surfaces. There are a number of good examples of schools which have improved their courtyard areas to benefit the whole school community.

At Perth High School, a quiet garden has been developed in one of four inner courtyard areas, as part of the school's anti-bullying policy. The previously unused space now has seating and a garden area and this has helped to create a place for pupils to sit quietly. It is anticipated that this will go some way towards reducing the incidence of bullying and behavioural problems in the school. There are also plans to develop another of the courtyards into an art area, with murals, sculptures and imaginative features developed by pupils working with an artist-in-residence.



The quiet garden - a quadrangle development at Perth High School.

Pitreavie Primary School, in Fife, has made improvements to an enclosed quadrangle in the centre of the school. The quadrangle was initially surfaced with concrete slabs, but it has now been altered to incorporate two ponds, a greenhouse, plant troughs and a variety of wildlife habitats. The school had outside help from some members of the Royal Engineers who assisted with digging up various areas and in installing one of the ponds. Funding for the project has come from school funds and the former Fife Region's 'Grounds for Learning' Award. The project has been a whole-school initiative, involving all pupils from nursery age right through to primary seven, in both planning and implementing the project. The benefits have been evident in a number of ways: a more positive school ethos, a sense of pride and ownership on the part of pupils, a greater awareness of the environment and related issues, and increased opportunities for team building, community involvement and curriculum development.



Quadrangle improvements at Pitreavie Primary School in Fife.

Govan High School in Glasgow now has a large quadrangle development on the school site. The project started in 1991, when teachers recognised the potential of the area for improvement, not only as a curriculum resource, but in a bid to attract some wildlife into the area, to enhance the immediate environment and to address behavioural issues. It was instigated as part of an art project to provide an opportunity for a design exercise and for creating display materials. The quadrangle now houses seating, shelter, wildlife habitats, outdoor art, a small pond and a hard-surface performance area which is used for outdoor drama productions.

Pupils preparing raised beds in the quadrangle garden, Govan High School, Glasgow.

Developing all-tarmacadam sites

The grounds of many schools have no 'green space' at all and are literally tarmacadam or concrete 'deserts'. This is not only true of urban schools, since many rural schools have very limited play space on the site and it is quite often all hard surface. However, a significant number of both rural and urban schools have tackled the problem and transformed their desert into an oasis.

A good example is Underbank Primary School in Crossford, South Lanarkshire, a small rural school with a formerly all-tarmacadam sloping site. The school is surrounded by fruit orchards, but the playground itself was regarded by the children as uninspiring, boring and in need of improvement. Consequently, they have transformed an area of the playground and brought the wildlife and beauty on the other side of the fence into the grounds themselves. There is now no need for children and staff to go further afield to enjoy the environment, as they have a wildlife area with a large pond, a more formal garden area and seating to enjoy in their own school grounds.

Islay High School, in Argyll and Bute, is another example of a rural school with an all-tarmacadam and paved site. Their project, started in 1994, is still at the early stages of development, but the harsh tarmac area is gradually being converted into a useful curriculum resource, and it is hoped that the initial improvements will 'kick start' other developments in different areas of the grounds. The school has created paths, murals, wildlife habitats, including a pond, and put in seating for the pupils.

At Uddingston, in South Lanarkshire, Muiredge Primary School is a typical pre-1930s all-tarmacadam site. The improvements that the school has introduced include wildlife habitats, seating, playground games, outdoor art and paths to enhance a formerly dull area. The project was instigated by the pupils themselves in October 1994, with help from parents, a local Urban Aid project called 'Greenspace Action', Scottish Natural Heritage and Wimpey Construction. The improvements have enhanced the appearance of the school, provided the children with increased play facilities and also created a valuable curriculum resource.

Pupils at Islay High School bridge a marshy area.

Adopting sites in the local area

Schools with all-tarmacadam sites do not always approach the problem by digging up the hard surfacing of their site. An alternative is to find a piece of land adjacent to the school and to adopt it as an area for development. In fact, schools should be encouraged to use local sites if this is a possibility, since it can often present an easier option than starting from scratch in the grounds themselves. This appears to be happening with increasing frequency, especially now that schools are implementing the requirements of the 5–14 curriculum. In Environmental Studies in particular, it is actually very difficult to teach many aspects of the curriculum without using the outdoors and so schools are recognising the need for an accessible resource on their doorstep.

Dunino Primary School is a small rural school near St Andrews in Fife. Its grounds are entirely of tarmacadam and so the school has elected to adopt a piece of land nearby to develop into a garden area. The children have been given the opportunity to take responsibility for it and make decisions about how the area should be developed and used. The project, started in 1994, is a long-term one involving the pupils, staff and PTA, plus outside help from the RAF at Leuchars, local volunteers and professional advice from Tom Gray at Wemyss Environmental Education Centre. Finance has come from school funds and the Fife 'Grounds for Learning' Awards scheme. The project is still in its early stages of development and there are long-term plans to develop the area further. Eventually, as the garden matures, it will provide a much richer environment, giving many opportunities for curriculum work.

Children at work in the "adopted" garden at Dunino Primary School, Fife.

Gilburn Primary School's community nature area in Dundee.

Two other schools which have adopted or been gifted pieces of land close by should be mentioned here. One is Ardrossan Academy in North Ayrshire. Staff, pupils and volunteers from numerous local outside organisations have developed an exciting community resource called the Parkhouse Community Nature Reserve next to the school on a dismantled railway line. The project was instigated in 1988 by a biology teacher in the school, Roger Griffith, and support was received from the Scottish Wildlife Trust (SWT), the Woodland Trust, Scottish Conservation Projects, Sustrans and the local authority. The land has been transformed into a haven for wildlife, a community facility and a valuable curriculum resource. Improvements, which to date have cost £37,000, have been funded by various sources, including the Shell Better Britain Campaign, BT Awards, OCS Awards, ICI funds, the SWT local group and the local authority. The reserve is owned by Sustrans and leased and managed by the SWT local group, of which Roger Griffith is an active member. An information leaflet about the reserve is available to interested individuals.

Gillburn Primary School in Dundee has also created a community nature area just along from the school. The area that has been developed was designated as a site of importance for nature conservation in 1987 by the former Nature Conservancy Council for Scotland, now Scottish Natural Heritage (SNH). However, no funding was available to protect and enhance the site at that time and it was being used as a dumping ground, so the school's Special Unit decided to adopt and improve the site. The aim was to attract more wildlife into the area and to provide an educational resource. The school also hopes that the communal nature of the facility will encourage the community to help maintain and further develop it.

Enhancing the natural heritage

Many schools have made changes on their sites to enhance the natural heritage quality of their grounds and to encourage wildlife. In 1995, which was designated European Nature Conservation Year, it was hoped that the natural heritage of urban areas in particular would be enhanced for wildlife and nature conservation, and schools and community groups were encouraged to develop 'mini wildlife havens' on their doorsteps. In fact, in Glasgow, SNH made a small amount of funding available to schools in that year for projects which encouraged 'Nature on your Doorstep' as part of the ongoing Glasgow Rosebowl Schools scheme.

James Aiton Primary School is situated in an area of housing and next to a busy road in what is designated as a Priority Area (formerly Area of Priority Treatment) of Cambuslang, South Lanarkshire. As a

A mini wildlife haven has been created at James Aiton Primary School, Cambuslang.

result of improvements that have been made to the school grounds, the site is now a real haven for wildlife in the heart of the city. The grounds contain a pond, woodland area, wildflower meadow, scrub area, hedgerow and tree nursery. The children are able to make use of the grounds for all sorts of curriculum work, both formal and informal, and there is now no need for numerous expensive trips away from the school in order to undertake valuable fieldwork.

At Baird Memorial Primary School, Cumbernauld, North Lanarkshire, a number of different habitats have been developed to encourage wildlife into these suburban school grounds. They include an environmental pond, a woodland edge habitat, a hay meadow, cornfield and annual gardens.

The wildlife garden at Baird Memorial Primary School, Cumbernauld.

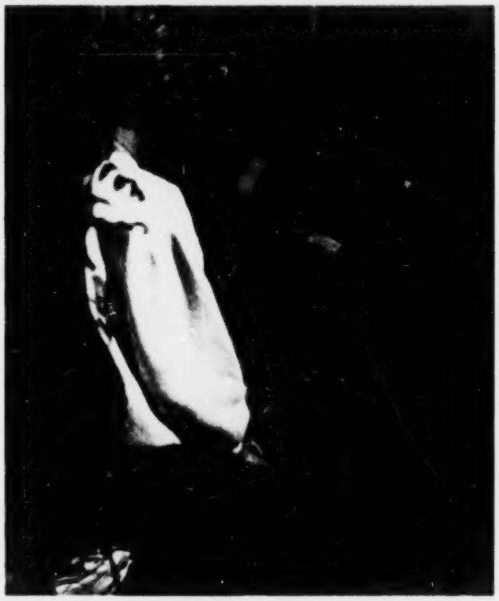
Creating something different

A number of schools have developed some unusual and innovative features in their grounds, perhaps for a specific project theme or because of local cultural influences. One such school is Inverbrothock Primary School, in Arbroath, Angus, where a map garden is being laid out in the grounds. It includes models of important local buildings to help the children learn about their environment and to give them a sense of place. There are also plans for a history walk, with more models and herbs planted in a rock garden in a time-line sequence.

Pupils at Inverbrothock Primary School present plans for their 'Map Garden'.

Prestonfield Primary School in Edinburgh has installed chimes and talk tubes in part of the playground area. The children can talk to each other from opposite ends of the playground through interestingly shaped metal 'tubes'. The idea behind the improvements is to provide more imaginative and creative play opportunities and to give the children unusual things to do. The structures have been designed to be robust, because of potential vandalism, and so far have stood up to heavy use.

Talking to each other across the playground through talk tubes at Prestonfield Primary School, Edinburgh.



Children playing with chimes at Prestonfield Primary School, Edinburgh.

At Govan High School, Glasgow, a formal Japanese garden has been created as part of the quadrangle development mentioned earlier. It was instigated by teachers in December 1994 as part of the Art curriculum, forming a design element on the course. Pupils gained a lot out of being involved in the project and it is now used as a curriculum resource for other teaching areas, such as Geography and RE. It has proved very successful for the school and in 1995 won first prize in the Glasgow Superbowl Competition.

Govan High School's Japanese Garden.

MULTI-CULTURAL ISSUES

School grounds can be a powerful symbol of the way in which we see children's role within the world. In schools with children from ethnic minorities, multi-cultural elements within the school grounds can provide a setting which enables children from minority groups to see themselves as full members of a multi-cultural society, instead of alien survivors in an exclusive world. Examples can be found of projects highlighting multi-cultural issues in a number of schools. They include such developments and activities as cultural gardens, the roles of various plants in different societies, looking at conservation locally and globally, hard landscaping features such as murals, welcome signs in numerous languages and events to celebrate festivals and traditions from around the world.

Quiet reflection in the school's World Garden, Park Place Nursery School, Dundee.

At Park Place Nursery School in Dundee, for example, the school grounds improvements have developed with multi-culturalism as a key feature of the project. This is essentially because nearly a third of the children in the school have English as their second language. The project started in 1992, at a Parents' Group Committee, when the question of brightening up the school entrance was discussed and this led to the grounds as a whole being considered for improvement.

A world garden has been created in the grounds. This involved all the children and parents from the different cultures represented in the school. The garden contains areas with plants from Scotland, South America, China, Malaysia and the Middle East. The multi-cultural aspect of the scheme has contributed to the children's personal and social development, creating an atmosphere in which they can learn how to work together and value one another's cultures and ways of life.

LINKING THE DEVELOPMENT OF GROUNDS AND THE CURRICULUM

In Scotland, primary schools and years S1 and S2 of secondary schools follow the Scottish Office Education Department's (SOEID) 5-14 National Guidelines. The attainment targets and programmes of study set out there provide very specific points of reference for purposeful development and use of the school grounds to meet curriculum needs, without being too prescriptive.

Taking the National Guidelines as a whole, across all subject areas, it is estimated that approximately 50 per cent of the 5–14 curriculum could be taught outside. Moreover, approximately 10 per cent of the curriculum (in Environmental Studies, in particular) cannot really be delivered comprehensively without using the outdoor environment. The 5–14 National Guidelines for Environmental Studies contain a number of direct references to making use of the school grounds. For example:

'Schools should consider carefully the nature of the immediate environment and community round the school and review ways in which it can be used to contribute to learning and teaching.'

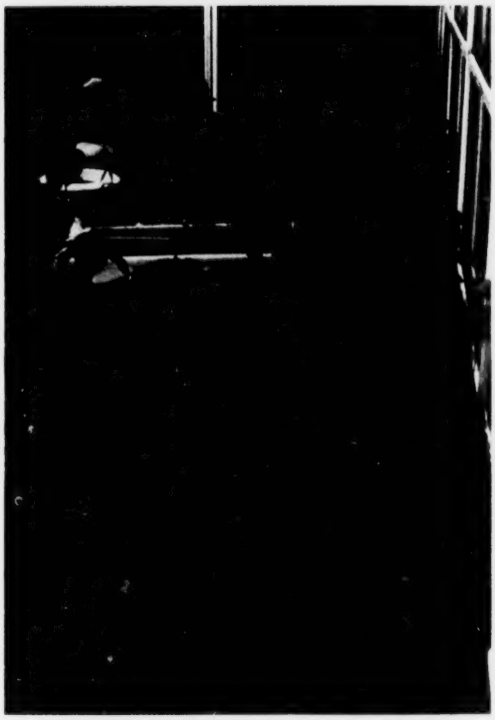
(Section Six, page 109, SOEID Curriculum and Assessment in Scotland, National Guidelines: Environmental Studies 5 – 14)

A teacher and countryside ranger curriculum planning at Ae Primary School, Dumfries.

Pupils "grow up with their trees" at Wardie Primary School, Edinburgh.

Many schools that have embarked on schemes in their grounds have tried to ensure that their project will be long term and sustainable. This has been done by incorporating the use, management and further development of the site into the school's curriculum development plan or environmental policy. Some schools, such as Wardie Primary in Edinburgh, have gone one step further and drawn up a school grounds development plan, which encompasses both curriculum use and maintenance/further development of the whole school site. Increasingly, schools are formulating some sort of environmental policy, which considers just how 'green' the school is and extends beyond saving energy and recycling issues to examine the whole school environment in terms of its quality and its effect on the children.

At St Elizabeth's Primary School in Hamilton, South Lanarkshire, a holistic approach is taken to developing and using the grounds of this large urban primary



The quadrangle garden at St. Elizabeth's Primary School, Hamilton.

school. The whole school community has been involved in the project from the start and the whole site has been looked at. Work is being done in phases, as and when time and funding are available, and the project is incorporated into the school development plan to ensure that all staff and classes participate in it. This will also ensure that the best possible curriculum use is made of the improved school site. All aspects of the curriculum are considered – formal, informal and hidden. The project has made the children more environmentally aware and has helped to create a sense of ownership, while at the same time developing life skills. It has also raised staff morale, as they have found it not only of educational benefit, but also an enjoyable experience for everyone involved.

The sections that follow outline the importance of incorporating the curriculum into school grounds development plans and describe some of the ways in which schools have used their environment to enhance their curriculum work in various subject areas.

Outdoor Education

The subject area most commonly associated with the school grounds is perhaps Physical Education. Traditionally, this would involve team games and athletics, using them to develop and extend the learning of physical skills, to encourage sound physical development and to improve personal and social skills. But increasingly, schools are developing 'trim trails' and 'fitness stations' or painting games markings on the playground with the aim of promoting better attitudes to health and fitness.

Outdoor Education is another subject area that might be commonly linked to a use of the grounds. Compass work, mapping skills and campcraft can be practised in the grounds and orienteering is another activity often undertaken.

Expressive Arts

Expressive Arts encompasses the four subjects of Art and Design, Drama, Music and Physical Education. The three outcomes are Using (materials, techniques, skills and media), Expressing (feelings, ideas, thoughts and solutions) and Evaluating and Appreciating. Brief mention has already been made of Physical Education, and most schools undertake some form of PE in their grounds, but there is equal scope for other aspects of the Expressive Arts curriculum to be covered outdoors. Even the most limited school grounds offer enormous potential for art and design projects, providing a natural 'studio' for inspiration.

The planning stage of a project affords opportunities for design work, such as the model made by Hyndland Primary School in their 'Planning for Real' exercise. Seating, shelter and sculpture offer further design possibilities. Other forms of art work outdoors include drawing, painting, sketching, constructing, photography and video. Murals and sculpture projects are becoming more popular with schools, and increasingly there are artists-in-residence or arts initiative projects able to work with schools.

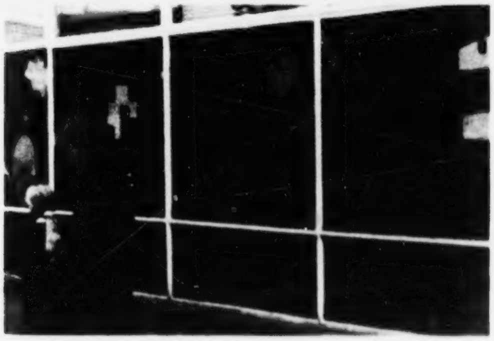
Lugton Special School in Dalkeith, Mid Lothian, worked with two arts initiatives in Edinburgh – Scotland Yard Adventure Centre and Dr Bell's Art and Drama Centre – to create an exciting street scene mural in an inner courtyard area of the school. The area is used by the younger

The street scene mural at Lugton School, Dalkeith, encourages imaginative play.

children for imaginative play and, as well as the mural, there are also road markings painted on the ground. The artists observed the special needs children at play to decide what to do with the area and the children helped with the design of the project.

At Hyndland Primary School in Glasgow the pupils worked on a sculpture project with a local artist-in-residence as part of the Glasgow City of Architecture and Design, 1999. The project involved a fantastical ship sculpture, which the children helped to design and then worked closely with the artist on its implementation.

In another partnership, an artist from the Washington Arts Centre, Glasgow, arranged a placement for a group of students to work with the children at Colquhoun Park Primary School, Bearsden, East Dunbartonshire. The children produced drawings related to class topics which the students then enlarged and transferred on to the large and rather dreary school windows. This was a very successful start to the school grounds improvements and a photograph of one of the windows subsequently featured in the former Strathclyde region's 1995 calendar.



Murals designed by children at Colquhoun Park Primary School, Bearsden, brighten up the windows.

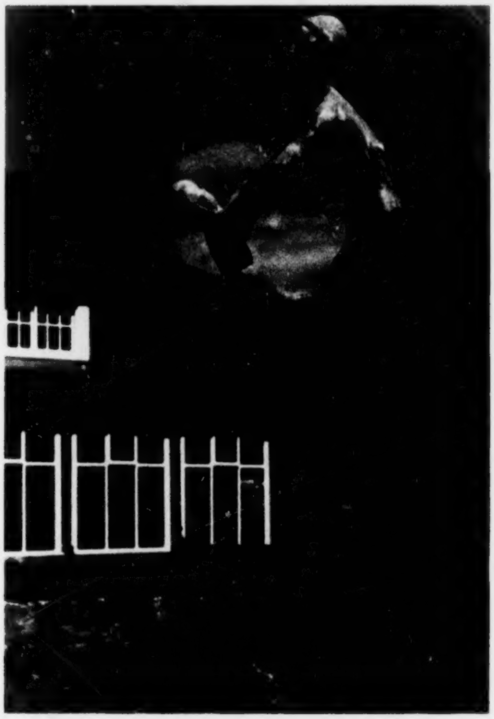
On a much simpler but equally effective note, children from Ae Primary School, Ae, Dumfries and Galloway, designed and painted a colourful mural in their school bike shed to brighten it up.

Painted playground games are also becoming very popular and are an easy way for schools to brighten up dull expanses of tarmacadam, as well as to provide increased opportunities for children's play and social interaction. The children should be involved in the design of the games and in the subsequent painting. A good example is provided by Peel Primary School in Livingston, West Lothian. The children surveyed the whole school to find out what games were needed, then they organised a design competition, selected winning designs and painted them on the ground, with the assistance of local 'posties', who also helped fund the project.

Ae Primary School's bike shed mural, Ae, Dumfries and Galloway.

Some schools are lucky enough to have interesting works of art that were installed when the school was built. Prestonfield Primary School in Edinburgh, which opened in 1931, was built around a courtyard containing a bronze sculpture and fountain designed by Thomas Whalen. The statue is admired as much today as it was in the 1930s and is still the central feature of the school. Similarly, at Wardie Primary School, also in Edinburgh, there is an impressive mural painted by Robert H. Westwater in 1936 on one of the end walls of the school hall, which is also much admired by visitors.

As far as drama is concerned, the school grounds can provide the inspiration for productions with environmental and make-believe themes. They can also provide an impressive arena for staging productions, as demonstrated by Govan High School, Glasgow, with its outdoor performance area. Increasingly, schools are considering the creation of outdoor amphitheatres with this in mind. Finally, there is great potential for role-play exercises and for mime, using the grounds as a stage or a theme for the activities.



A Thomas Whalen statue adorns the inner courtyard at Prestonfield Primary School, Edinburgh.

English Language

The four outcomes of English Language in the 5–14 curriculum are Listening, Talking, Reading and Writing. The school grounds can provide very rich language experiences, some of which might be sensory and largely concerned with observation, asking questions and undertaking investigations. Specific skills can be developed, such as individual writing in poetry and prose, group discussion and negotiation, and oral and written reporting. The sorts of language activities schools have been involved in range from writing letters asking for sponsorship and keeping a diary of progress to drawing up invitations and press releases for celebratory events, producing newsletters and information sheets about the grounds and investigating Scots language links and culture to do with the grounds.

Many schools have produced comprehensive reports on their projects, usually serving to keep their funders informed of progress, but also useful as a means of sharing their ideas with visitors. Prestonfield Primary School in Edinburgh, for example, has produced a very extensive report on its grounds project, written entirely by the children. It will be useful in making future bids for funding and will also serve as a celebratory document of progress made by the school.

Pupils from Glenborrodale Primary School, Highland, have produced a booklet on the local area for visitors to the Ardnamurchan peninsula, particularly children coming to the area on holiday during the summer months.

At Baird Memorial Primary School in Cumbernauld, North Lanarkshire, a meadow garden had been established in 1992. Part of the second phase of development was to integrate the garden into the curriculum of the whole school in a cross-curricular way. An action research project by Anne-Karin Thomson, a former environmental education officer with the local authority, was the first step in that direction, involving primary fives and sixes. It was during this project that a local playwright, Brian Miller, became involved and developed a short story about the garden (The Three Tribes), which was received with great enthusiasm. In another initiative, the children are hoping to forge links with a school in Norway which is undertaking improvements in its grounds. This has come about through the involvement of Anne-Karin Thomson, who is herself Norwegian. They hope to exchange ideas and communicate generally to learn about cultural and geographical differences between the two countries.

Meanwhile, children at Kippen Primary School in Stirling have looked at their grounds through the medium of the traditional Scots language. They have investigated minibeasts and plants, and undertaken different activities using the traditional language. In this way they have identified 'clock o' leddys' (ladybirds), 'puddocks' (frogs), 'stuckies' (starlings) and other interestingly named creatures.

Mathematics

In Mathematics, the school grounds offer scope for a wide range of practical activities, many of which will help pupils to understand mathematical concepts. The survey stage of a project can provide work in estimating, working out percentages, measuring, statistical analysis, and recognising patterns, sequence and simple relationships in analysing the data collected in the grounds. Scale could be investigated through model making, simple costings can be made during the planning stage and financial records kept in order to learn about budgeting. The scope for project work is considerable. Schools have frequently incorporated many of these aspects of the Mathematics curriculum into the survey and design stage of their development projects.

Environmental Studies

This subject area brings together the predominant ways in which pupils learn about the world. The framework for Environmental Studies consists of Science, Social subjects, Technology, Health Education and Information Technology, with Environmental Education as a permeating element that encourages the development of informed attitudes to the environment. School grounds projects offer enormous scope for teaching numerous aspects of the 5–14 curriculum in Environmental Studies: for example, in Science, the outcome Understanding living things and the processes of life; in Social subjects, the outcome People and place; in Technology, the outcome Understanding and using the design process; and in Information Technology, the use of video, data bases and general data analysis. Direct references are made in the document to using the immediate environment around the school. For example:

'*Draw conclusions, e.g. which are the most common birds visiting the school grounds? Which are the warmest/coldest parts of the school?*'

(page 28, SOEID Curriculum and Assessment in Scotland, National Guidelines: Environmental Studies 5–14).

This is the curriculum area that schools tend to associate most readily with school grounds projects and many schools in Scotland now have well-developed programmes of study based on the 5–14 National Guidelines. Peel Primary School in Livingston, West Lothian, for example, has developed a whole-school approach to an environmental awareness, care, conservation and change programme called Seasonal Modules. The school has developed its grounds over a period of five years and now has a number of different habitats, such as areas of native tree planting, a tree nursery and a more formal garden area.

Listening to a tree in the grounds at Peel Primary School, Livingston.

The aim of the programme of Seasonal Modules is to heighten the children's own sense of worth through being active within the immediate environment. The programme was worked out in consultation with all the school staff and the local Ranger Service in Livingston. It makes full use not only of the extensive school grounds but also of areas close by the school, including a burn and an adopted piece of woodland where a pond has been created. Each class is responsible for a specific feature, based on study areas for that age group each year. For example, the primary fives look after the school garden and will spend the first two to three weeks working in the garden at the start of each term. They have various tasks and topics for study in August, October, January and May. In August, for example, they undertake an audit, look at litter, examine types of flowers, seeds and seed dispersal, the interaction of plants and insects, and minibeasts and use quadrats. Each class is responsible for the maintenance of their area.

Children involved in seasonal module curricular study at Peel Primary School, Livingston.

At Lunnasting Primary School in Shetland, adverse weather and site conditions have not deterred pupils and staff from developing part of their grounds as a curriculum resource, particularly for Environmental Studies. They are also fortunate enough to have the beach on their doorstep and this provides numerous opportunities for all sorts of environmental study. The school's 'green efforts' were rewarded when, in 1995, they won an Eco School Award (sponsored by Keep Scotland Beautiful, part of the Tidy Britain Group) for their school projects, particularly with regard to the environment and recycling.

Other examples of school grounds developments providing a valuable resource for Environmental Studies can be found at Catterline Primary School, Stonehaven, Aberdeenshire, and Islay High School, Argyll and Bute. At the former, the wildlife area close by the school has been developing and

Pupils help to water plants at Lunnasting Primary School, Shetland.

maturing since 1985 and is now used for a wide range of practical activities featured in the 5–14 curriculum. Improvements at the latter school are more recent but are already being used for both Environmental Studies and Expressive Arts teaching.

SPECIAL NEEDS ISSUES

All pupils can benefit greatly from working outside, but pupils with special educational needs can gain particular advantage from outdoor practical experiences. Often a relevance can be provided that may be difficult to replicate in the classroom and real life skills can be learned that they will use in later life. Children with learning difficulties, in particular, have been seen to gain confidence and to be more motivated and settled through working outdoors. Opportunities for integrating the pupils with mainstream children can be provided more easily; this applies also to integration with people from outwith the school, which can be very beneficial to the pupils.

Searching for snails at Catterline Primary School, Stonehaven.

Designing grounds developments for pupils with physical disabilities can provide useful curriculum opportunities. For example, ramps and raised beds may be needed and features such as sensory gardens can be planned. At Hawick High School, in the Borders, a wildlife site in the school has been developed in an inner courtyard for use by the whole school, including children in the special educational needs unit. These children often have their lessons outside in the 'sanctuary' area, as it provides a conducive atmosphere to learning.

The development of a community nature area near Gillburn Primary School in Dundee has provided the children from the school's special unit with an ideal integration opportunity. It has been a very rewarding project for these children, enabling them to work with outside organisations, the local community and children from other local schools. Also in Dundee, Kingspark School makes extensive use of its vast grounds and it has become a vital and intrinsic part of everyday life for the children, many of whom have profound learning difficulties.

A pupil from Kingspark Special School, Dundee, at work in the school greenhouse.

CELEBRATING SUCCESSES

Once the implementation of a school grounds project is under way, then it provides the ideal opportunity for the school to organise some sort of event or open day to officially launch the project. Learning through Landscapes now organises an annual School Grounds Day, usually held in May, which provides schools with a ready-made occasion for a possible event. Many schools have used this day to obtain publicity and raise awareness locally of the importance of school grounds.

Staff and pupils at St Elizabeth's Primary School in Hamilton, South Lanarkshire, used School Grounds Day 1995 to organise a big open day in their school. They have been improving their school grounds since September 1993 and thought this event would provide the perfect opportunity to secure publicity for their project. At the start, the pupils were involved in surveying the site and, with the help of a landscape architect from the local authority, drew up a master plan to improve the whole site in phases over a number of years. The use and maintenance of the grounds have been incorporated into the school curriculum development plan, ensuring the involvement of all classes and teachers in the continuing project.

At the open day on 3 May 1995, members of the local community were invited into the school to witness the burying of a 'time capsule' by local dignitary, MEP Ken Collins, under a tree that had been planted on St Andrew's Day 1994. The children had chosen what was to go into the time capsule, which the school anticipated would be dug up by the future school community in 2045. Various other activities took place in the school grounds that day and it proved to be an excellent way of securing press coverage, as well as making the local community aware of the scheme.

The school community at Underbank Primary School, Crossford, South Lanarkshire, officially opened the first phase of their school grounds improvements in October 1995. They invited numerous local dignitaries, friends and parents along to the event, which gave the staff and pupils the opportunity to raise awareness of their project. They explained how it all started, who had helped, how they had raised money and how they planned to use and further develop the area in the future. The children drew up the invitations and their curriculum work resulting from the development of the area was displayed for visitors to look at. The children were very excited and proud of their achievements and their hard work was rewarded with local press coverage and photographs. The highlight of the official opening was when each child in the school released a helium-filled balloon, complete with name tag, into the air above the school.

REVIEWING THE PROJECT

Once a school has implemented its project, it is important to monitor it on a regular basis. The project should never be seen as complete, for it will be continually changing, developing and maturing. Consequently, its potential for use will change with time, as will the need for maintenance. It may also provide impetus for more change, becoming a truly dynamic and sustainable feature.

The management structure that was set up to develop and then implement the scheme can also be used to review it. Its task will be to ensure that the most is being made of the project, that it is sustainable and also to monitor what benefits have resulted from the project. It may be tempting to feel that once the initial plan has been implemented, no more needs to be done. It has been proved, however, that the most successful projects are those which are continually developing, bringing with them enormous benefits to the whole school community.

A pupil from Cranloch St. Andrew's School, Elgin, measures tree growth.

Proud pupils and their pond, St. Andrew's Primary School, Dumfries.

At St Andrew's Primary School in Dumfries, senior teacher Patricia O'Neill suggested a grounds improvement project for a particularly difficult class of children who had become labelled as trouble-makers. It was felt that being involved in a successful project would make them feel valued. Initially a wildlife garden was developed, to be followed by many other features that transformed the school grounds and gave the pupils a feeling of empowerment and a sense of pride and responsibility. Before they started the project, the pupils were unhappy at school and their behaviour was generally anti-social. But the scheme changed all this and they were complimented on their politeness and enthusiasm when they were awarded the Beautiful Scotland in Bloom First Prize in 1994.

KEEPING RECORDS

Before starting the implementation phase of a project, schools should remember to take photographs of their sites, since it is very useful to be able to compare before and after shots once the scheme has developed. It is also a valuable exercise to get the children in the habit of keeping records and recording changes over time. This provides not only a useful curriculum opportunity, but also a base point for data collection (changes in numbers of species recorded over a period, for example).

Many schools have gone on to write booklets or information leaflets about their projects to provide visitors and other interested parties with a potted history of the project. High School Yards Nursery School, Edinburgh, has produced a small book on its improvement project, called 'The Wee Green School Pack'. It was published with help from the local authority and the Royal Mail. And Cauldeen Primary School, Inverness, has produced information leaflets about two of its projects, the Macleod Nature Area and the Garden of the Senses. Such ventures have obvious benefits in terms of language and technology curriculum projects.

Recording changes and progress on video is another medium that several schools have used. At Currie High School in Edinburgh, two S2 pupils produced a very professional six-minute video about the grounds improvements in the school and this has proved to be a useful way of informing visitors to the school about the project.

SCHOOLS FOR THE FUTURE

Increasingly, schools everywhere are looking at their grounds as more than just a place for the children to go at playtime. The enormous value of these outdoor spaces as a curriculum resource is being recognised and addressed. The lesson that can be learned from this as regards new-build schools is obvious: why not look at the grounds at the same time that the buildings themselves are being erected and design them with a quality environmental experience for the children in mind? It seems so apparent and yet schools are still being built with no thought whatsoever given to the outdoor space.

Leith Academy in Edinburgh is an exception to this rule. The building has been purposely designed as a community school, with much thought being given to the quality of the environment for all those in the school. It was opened in 1991 and has received a number of awards for its architectural design. There is a central glass 'street' running the whole length of the school, with plants growing along its edge and hanging down from the walls, giving a very light and outdoor feel to the main concourse area of the school. All departments lead off from this central 'street' and there are inner courtyard areas with seating, more plants and a large greenhouse. The entrance to the school is very welcoming and the grounds have been suitably and appropriately landscaped.

As a model for the future, Leith Academy has much to commend it. In the meantime, pupils and staff at schools all over the country are using their own initiative and enthusiasm to extract the full potential from their existing sites and transform them into inspirational environments.

The "glass street" at Leith Academy, Edinburgh - a school for the future?

Gillburn Primary School, Dundee

The school

Gillburn Primary School is sited in an area of multiple deprivation in the Kirkton district of Dundee. It caters for 370 children between the ages of five and twelve. The grounds are a mixture of tarmacadam and some grass areas, but the school has 'adopted' a nearby piece of ground, which is owned by Dundee Planning Department, to develop into a wildlife area. This is now referred to as the Gillburn Community Nature Area.

Ideas and planning

The site of the nature area used to be a piece of waste ground, which was designated as a site of importance for nature conservation in 1987 by the former Nature Conservancy Council for Scotland, now Scottish Natural Heritage (SNH). The ground was neglected and started to become a local eyesore, with dumping and unsociable behaviour problems. No one had any funding to protect and enhance the site, so in 1991 the children and staff of the special educational unit at Gillburn Primary School decided to do something about the area.

As a first step, they sought permission from the local Planning Department to turn the waste ground into a community nature area. Their aim was to enter the Dundee 800 Young Environmentalists of the Year Awards in 1991, and in the event they were awarded the Special Merit prize. Their entry consisted of plans to create a butterfly sanctuary on the derelict land. Dundee Planning Department, as part of their draft Nature Conservation Strategy for Dundee, suggested that the children might like to extend their plans to include a variety of habitats within the nature area. Scottish Enterprise Tayside agreed to fund the project as they considered it to be of long-term benefit to the local community.

The main objectives of the scheme were: to attract and protect wildlife; to provide an educational resource that would help to develop knowledge and skills and result in more positive attitudes to the environment; to provide a community resource in a deprived area; to furnish an opportunity for integration between schools and between mainstream and special needs children; and to offer a facility for mentally disabled adults.

There followed a period of discussions with residents, the Parks Department, the Planning Department and the countryside ranger service. A plan was drawn up and agreed, which consisted of a butterfly sanctuary, a meadow, a marsh and areas of grasses and a hedgerow. Paths through the area were to be 'wheelchair-friendly'. The Parks Department agreed to adopt the site and provide regular maintenance, working alongside staff, parents and pupils from the school.

Gillburn Primary School pupils at work with a countryside ranger in their community nature area.

Implementing the plan

The initial phase of work involved local residents along with staff and pupils from the school and from other schools in the locality. A day was set aside for work to begin and trees and shrubs were planted. The activities managed to attract the interest of the local press and also Grampian Television. A video was made of the day's events.

Children from the school designed and helped make the gates for their community nature area.

Since then improvements have taken place steadily and the site now has a butterfly area, wildflowers, areas of trees, a marsh, a drystane dyke and log seating, provided by the Parks Department. The paths, which are accessible by wheelchairs, were laid out by a local building firm, with the help of the children. Gates and a formal entrance sign provide added security. There are plans to develop a sensory or tactile corner in the future.

Support and funding

The school has received considerable outside help and support with the project. The local authority Education Advisory Service gave support and encouragement, and advice has been received from staff in both Planning and Parks Departments. In addition, the local Ranger Service has given practical help and advice. Scottish Enterprise Tayside, the Bank of Scotland and SNH have helped to fund the project, which to date has cost approximately £10,000. Materials have been supplied by local firms Minto Builders (for the paths) and Brown & Tawse (for the gates). Students from Dundee College of Further Education worked with the children to design and build the gates. And of course much practical help has come from the local community.

Management and maintenance

The land is owned by the local authority Planning Department but the Parks Department has agreed to maintain it with help from the school. The number of children and local residents involved in the project guarantees long-term support. The continuous involvement of the local Ranger Service has been assured and they regularly visit the site to work with and advise the school staff and children. An 'outdoor classroom club' has been set up by the school and the children are encouraged to see conservation as a leisure activity. There is a local residents group, the Kirkton Residents, who meet regularly and who spread information about the area to others.

A resource for learning

The project has proved to be a valuable learning resource both in its implementation and in its end result. The children were involved in all stages of the creation of the nature area, from considering the initial ideas and drawing up plans to making decisions about choice of materials and features. They also discussed plans with various people from outside agencies, shared information with local residents and schools, and were involved in designing and making various features such as the metal gates.

Now that the nature area is established it has become a valuable cross-curricular resource, encompassing Language, Environmental Studies, Mathematics, Music and Movement, Dance and Drama, social skills and Art and Craft. Opportunities for teaching Environmental Studies, in particular, have been greatly enhanced, allowing children with learning difficulties to work with their mainstream peers on an equal level. Topics covered include sorting, comparing similarities and differences, predicting outcomes and testing hypotheses.

Children from the school hunt for minibeasts in the drystane dyke.

In Language studies children have made great progress. The emphasis has been on talking and listening skills, and children have been introduced to discussion resulting in decision making. Maths too has proved to be enjoyable because the measuring, estimating and costing exercises have had a practical, real-life purpose.

In Music and Movement and Dance and Drama, the children have explored space and learned to create music together. They have used a variety of media in art work and looked carefully at shape, texture, colour and patterns in the environment. The results brought them great delight and gave them confidence in their own ability, which for special needs children is most important since many have lost confidence through repeated failure to keep up with their peers.

The greatest area of progress has been in the development of the children's social skills, as they have learned to work together and take personal and group responsibility. Their confidence has also increased along with their sense of responsibility towards themselves and others.

Problems

The site of the nature area is in a very deprived part of Dundee, which can be prone to vandalism, but in fact it has suffered only very negligible amounts of damage. One incident occurred during Guy Fawkes Night celebrations, when some fencing was damaged. The involvement of the local community in the project has meant that they keep a watch over it and this has helped to prevent serious problems.

A valuable curriculum resource has been created on the school's doorstep.

The benefits

A practical benefit of having the nature area close to the schools and the community centre is that no transportation costs are incurred in visiting the site. Developing the area has had a marked effect on the children's understanding of the environment. They now take a greater interest in it and show a caring attitude towards conservation. They also feel a real sense of ownership in the project.

The scheme has also helped to reinvigorate the community spirit by encouraging local residents to become involved in a practical way. Youth groups from the nearby community centre now have the opportunity to work for the conservation of their local environment. Four local primary schools have a resource that involves children in practical, environmental education as well as being a focus for integration between them.

Perhaps most important is the opportunity that has been afforded for integration between mainstream and special needs children. Staff at the school have become aware that the abilities of special needs children tend to be under-estimated. This project has demonstrated that by taking the children out into the environment and showing them a practical reason for learning a skill, the task is more readily tackled and the concept remembered. This is aptly illustrated by the well-known Chinese proverb:

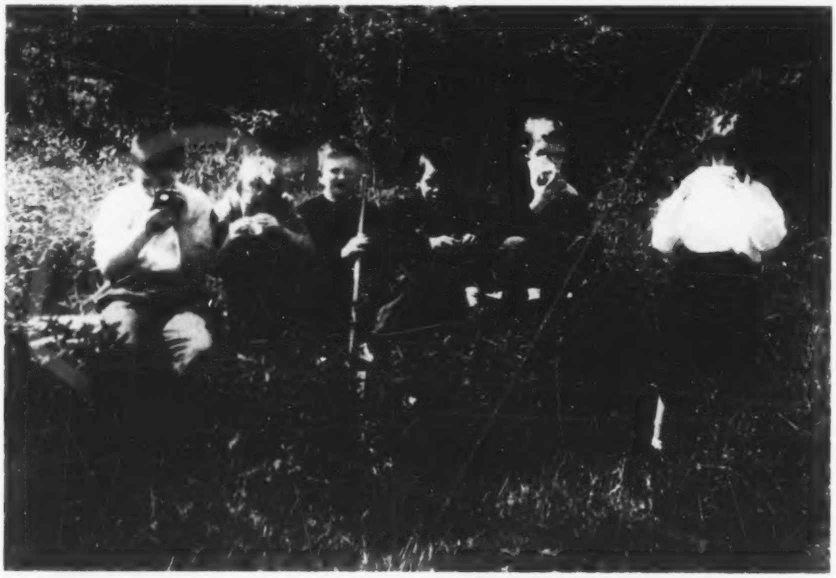
What I hear I forget,

What I see I remember,

What I do I understand.

Advice to other schools

- Look beyond the school grounds for potential sites for development.
- Involve all the pupils and staff. This helps to integrate different strands within the school.
- Extend ownership of the site to the local community and involve local people in the planning and practical work.
- Look at the possibilities for all curriculum areas to benefit from the implementation and results of the project.



Valuable curriculum work can now be undertaken outdoors. Gillburn Community Nature Area, Dundee.

Glenborrodale Primary School, Ardnamurchan

The school

Glenborrodale Primary is a very small, rural primary school situated on the Ardnamurchan peninsula in the Highlands. The area is extremely remote with a small population living in scattered houses. The school was built after the 1872 Education Act and currently has a roll of eleven pupils. They are looked after by one teacher, Miss Mary Adam. The school grounds are a mixture of tarmacadam and some grass areas. The playground is very small and there is also a small, poorly drained garden area, with boggy water flowing off the adjacent hillside. Until fencing was carried out in 1992, sheep, cows and deer were able to get into the school grounds!

Glenborrodale Primary School, Ardnamurchan.

Planning and implementing the project

The project to develop the school grounds started in April 1988. The teacher wanted to encourage the children to explore and understand their own environment and to give them the opportunity to see how their actions can influence and affect the environment. The project was also intended to improve the appearance of the school and attract more wildlife into the immediate area. A further aim was to provide a useful curriculum resource.

The whole school site was considered in preparing an overall plan and pupils, parents, the teacher, non-teaching staff and local residents were involved right from the outset of the project. The children have taken a leading role throughout the project and they are encouraged to take responsibility for making important decisions. In such a small school, everyone is involved and there is no real need to have a committee to take decisions and oversee change.

The children drew up a plan for the garden area, then drained it to create a reserve. The garden was fenced to prevent animals getting in. It now has a drainage system designed, constructed and maintained by the pupils, a pond, flower-beds, a vegetable plot, a sandpit, paths and a games area. The children also set up and successfully ran their own business, called A.B.C. (Ardnamurchan Beginners' Company), in order to produce a booklet about Ardnamurchan. This is aimed at children coming to the area on holiday, encouraging them to explore and enjoy the area and to care for their own environment. All aspects of work to do with the booklet were undertaken by the children and it provided an excellent cross-curricular project, involving Science, Language, problem solving, Maths, History, Geography (Environmental Studies), Expressive Arts and Technology.

A resource for learning

The school now has a very useful curriculum resource. As the site has developed and matured, it has been used increasingly every year. The children also continue their curricular work at playtime and lunchtime quite happily and enthusiastically. And very often after school, the teacher, children, parents and friends work in the local community on topics linked to school work.

Pupils busy watering plants. Glenborrodale Primary School, Ardnamurchan.

Support and maintenance

The children have been the driving force behind the project, but the school has received some help from an RSPB warden who works on a summer seasonal basis. The warden would visit the school once a week for six weeks during the summer term and offer help and advice on any work being undertaken. Parents and friends of the school have willingly been involved with practical work, under the children's guidance, in particular helping with heavier work that the children were physically unable to carry out.

Very little money has been spent, in line with the intention of the project to keep down costs. The children have been very inventive in recycling all sorts of things, such as old carpets, drainpipes, slates, tyres, plastic bottles, paper, and so on. The site was a difficult one, but the children worked with what they had and overcame any problems by not being over-ambitious and maximising opportunities. The weather, too, could often be inclement, but again the children got on with things whenever they could. Maintenance is now fairly easy, because the site is used to its full potential. The pupils, teacher and parents all help out with maintenance, when it is required.

Future plans

The school plans to develop the grounds further as a resource by using the outdoor environment to cover more topics in the curriculum. The pupils also plan to invite children from other local schools to visit and work through the booklet with them. A second booklet on the Ardnamurchan area is being planned to provide more detailed and up-to-date information. Another development that the children have in mind is to lead guided walks through the various habitats, to show local people and other children what they have achieved by developing their environment. The walks will be based on worksheets that the children themselves are producing.

Glenborrodale Primary School pupils enjoying being outdoors!

The benefits

The children at Glenborrodale now have a much greater knowledge of environmental matters and have developed very positive attitudes towards their environment. They have taken pride in their work on improving the grounds and learning has been fun and progression easy. A great many opportunities have been created for different activities that have involved all ages, including adults and members of the local community.

Advice to other schools

- Encourage the children to look carefully at their environment and make suggestions for improvements.
- Link the developments to curriculum work.
- Look at the environment as a valuable resource for learning.
- Share your achievements with others outside the school to encourage greater appreciation of the natural environment.

Lugton Special School, Dalkeith

The school

Lugton School is a large, suburban school for children with special educational needs, situated on the outskirts of Dalkeith in Midlothian. The school was built in 1974. There are 150 pupils at the school, looked after by twenty-five staff, fifteen auxiliary staff and three nursery nurses. Most of the children have moderate learning difficulties, some with visual or hearing or similar impairment, and many are emotionally and socially disturbed. A few also have physical disabilities. There are a significant number of pupils with severe learning difficulties.

The grounds are extensive and very beautiful, with some playground areas, an inner courtyard, a large grass area and an adjacent woodland. The staff felt that there wasn't enough for the children to do outside and this was leading to bullying and behavioural problems that needed to be addressed. It was partly to deal with this problem that the grounds project developed.

How the project started

The initial impetus for the project came from one staff member in the school, Mrs Doris Stanley, who was studying for a diploma in Special Educational Needs at Moray House Institute of Education, Edinburgh. Her thesis looked at the use of the school grounds as a teaching and learning resource. By means of questionnaires she canvassed the rest of the school staff and the pupils to find out their views on the appearance and use of the grounds and how they might be used more. This resulted in the setting up, in December 1994, of a working group, made up of ten teachers, two nursery nurses and one parent, to look more closely at how the grounds might be improved. The group started fundraising in April 1995, the school's twenty-first birthday year, and in a short space of time £15,000 was raised.

At the same time the school also set up two other working groups to look at bullying and discipline in the school, as the two areas appeared to be intrinsically linked.

The developments

The working group, PALS (Play At Lugton School), drew up a plan to develop the grounds and this was carried out gradually, as and when assistance and funding became available. Initially the project was led by one teacher, but once it gained momentum, the whole school soon became involved and now everyone is committed to the project.

An inner courtyard area, used by primary twos and threes, was improved first of all, with assistance from Scotland Yard Adventure Centre (play and craft centre) and Dr Bell's Art and Drama Centre, both in Edinburgh. A colourful mural of a street scene, with associated road markings, has been painted in the courtyard to encourage imaginative play. The children have small wheeled toys to play with in this area.

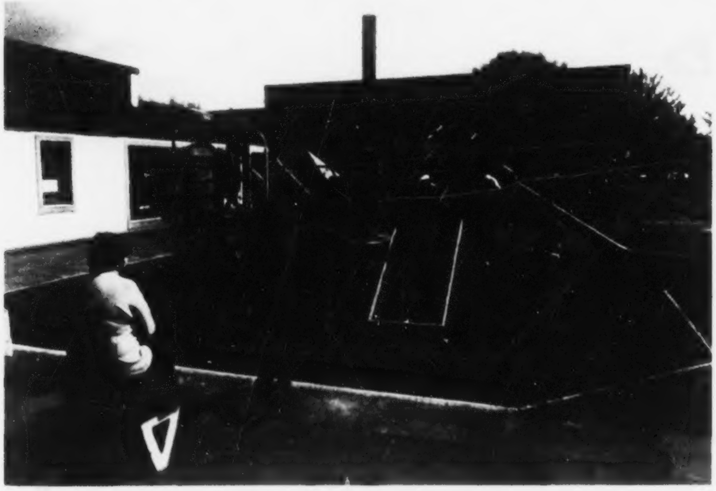
In the grounds at the front of the school, used predominantly by primary ones, tables and benches have been erected. A mural of a woodland scene, along with playground equipment and safety surfacing, were added in May 1996. The £15,000 raised helped to pay for the play equipment.

Support, funding and maintenance

All teaching staff and associated staff and many parents have been involved in the project. An in-service course was organised by an advisory staff member from the former Lothian region on 'improving the school grounds generally' and

Painting the woodland mural in May 1996.

Mrs Stanley also organised a training day for other staff which centred on the grounds at Lugton. A representative from Edinburgh Wildlife Group, Sudheer Carroll, has been to the school and offered advice. And, as mentioned above, two Edinburgh-based arts initiatives were involved in the design and painting of the murals. Advice has also been received from the National Centre for Play.



May 1996 saw the arrival of new play equipment and safety surfacing at Lugton School.

Funding has been sought from a number of different organisations. The largest donation, of £6000, came from 'Children in Need'. In May 1996 a BT Environment Award was presented to the school; this will help to pay for the mural and also for a sensory garden. The army and a decorating company, Craig & Rose, have provided manpower and suppliers of paint respectively. Currently the army is helping to install some log seating. In addition, almost £4000 from Radio Forth's 'Help a child appeal' was donated in May 1996, bringing the total funds raised to over £20,000.

There has been only limited community involvement in the project to date, primarily because the school's catchment area is extremely wide and few, if any, of the children come from the immediate area. This is a common feature of special educational needs schools.

As far as maintenance is concerned, the whole school site is looked after by the local authority grounds maintenance staff. This includes the new developments on the site, although staff and pupils have agreed to help out in this area. Additional help was received from the new Midlothian authority in April and May 1996.

A curriculum and social development resource

All the staff make use of the grounds as a curriculum resource, particularly for the 5–14 curriculum, and all are keen to develop further their skill levels in this area. A technical teacher who is currently doing a Diploma in Special Educational Needs is developing outdoor classroom areas as part of his project. The staff recognise that they may have to help with some of the maintenance of the grounds as well.

Informally, the children use the grounds at playtimes and lunchtimes but the breaks tend to be short because of the problem of bullying and antisocial behaviour. It is hoped that the improvements being made in the grounds will go some way towards alleviating this problem. Many of the pupils have extreme behavioural difficulties and problems, particularly some of the older boys who taunt the younger pupils. However, the staff are hopeful that the changes will help improve the personal and social development of pupils; this is reflected in the name of the fundraising group, shortened to PALS – with the aim of making the pupils better pals!

Advice to other schools

- Set up a working group to co-ordinate the project.
- Involve as many people in the school community as possible.
- Look to outside sources for help in kind as well as financial support.
- Maximise the use of the grounds as a curriculum resource.

Park Place Nursery School, Dundee

The school

Park Place Nursery is a school for approximately 144 children situated in the centre of Dundee. It is bounded by an area of housing, part of the University and the inner ring road. The school was built in 1966 and its grounds consist of tarmacadam areas and some grass.

How the project developed

The initial idea to improve the grounds at Park Place came from the parents and teachers in early 1992. At a meeting of the Parents Support Group, discussion focused on the unwelcoming nature of the school entrance, both for children and for visitors to the school. This area consisted of an eight-foot-high wall with dark gates, a stretch of flat grass and a line of paving slabs. It was agreed that some planting was needed and perhaps some sort of art feature. The project developed out of this discussion.

Plans were drawn up and discussed with staff and parents and a grant from the former Nature Conservancy Council for Scotland (NCCS), now Scottish Natural Heritage, was applied for. A professional artist was consulted and a phased programme of work was agreed over a period of three years. Since roughly a third of the children in the school spoke English as a second language, it was decided to make multi-culturalism a key feature of the project. Consequently, the idea of a world garden was conceived. It was also agreed that both the children and the local community should be involved in the project as much as possible to give them a sense of ownership and responsibility for their environment. Teachers also hoped that the project would strengthen the school ethos and provide a sense of identity, as well as improving the safety of the grounds.

Children, parents, teachers and non-teaching staff have all been involved in the planning, fundraising and implementation of the project. They will all continue to take part in the ongoing maintenance and management and in any future developments.

Support and funding

The grant from the NCCS funded the world garden area. The school then received an award from the BT/Learning through Landscapes Urban Challenge in 1992, which helped towards improvements to the gate and wall. An artist from a local College of Art was engaged to develop design ideas for this with the children.

Other letters of application for money were also written and the school managed to secure some funding from the Scottish Arts Council and Scottish Enterprise Tayside. In total, £5000 was raised from a number of different sources, mostly sponsorship and donations. Raising funds was a slow process and quite a drain on staff time and energy.

Implementing the plan

The project has developed in three stages, co-ordinated mainly by the headteacher, with other staff and parents taking part enthusiastically as results became apparent. Parents and volunteers from the local community helped when they could, often at weekends, and the children ensured that everyone living in the neighbourhood of the school knew what was happening. This resulted in donations and help, as well as promises to provide a 'neighbourhood watch' over the school site.

Children at Park Place Nursery School, Dundee, enjoying their maze.

Work progressed well as paths and paving slabs were laid, a maze built and trees planted. Local volunteers with the Scottish Wildlife Trust helped the children plant trees and sow a wildflower meadow. The creation of the world garden involved all the children and parents from the different cultures represented in the school. The scheme includes Middle Eastern, Scottish, Chinese, Malaysian and South American gardens.

The artist worked with the children to design the wall and gates, although he executed the work himself. Instead of a blank wall facing visitors, there is now a three-dimensional skyline of the city with wrought iron gates containing children's profiles.

The first phase of the project was completed in the summer of 1994 and the school held an official opening ceremony, attended by all those who had been involved. The project was well received by the local authority Education Department and the opening ceremony received excellent coverage in the local press.

The benefits

The school now has a safe and welcoming entrance and this has influenced the image of the whole street. The nursery school is now located positively within the built environment. Passers-by comment on the school's appearance and local primary school pupils call in on their way home from school. In addition, the multi-cultural ethos of the school has been highlighted through the world garden. This has helped to forge links with parents from a range of cultures and is a means of recognising the importance of those cultures in the school community.

A valuable resource has been created which is used daily. Since the nursery school curriculum is activity based and revolves around learning through play, the garden provides a practical resource for everyday use. Both long-term and daily planning include specific tasks to be undertaken in the garden in all the main curriculum areas. The art project in particular supported Expressive Arts activities, raising awareness of art as part of everyday life. The multi-cultural nature of the garden has contributed to personal and social development, creating an atmosphere in which children can learn how to work together and value each other's cultures and ways of life.

Future plans

The first phase of the project is now essentially complete and entails only maintenance and minor developments through the curriculum. Plans are under way for a second phase, which will focus on the improvement of an internal play area. This will be a totally different kind of development and will have different priorities. The site, which is used for physical play, has a tarmacadam surface. The school plans to incorporate in the design features to encourage creative play, such as road markings, a mud garden, cosy corners, flower beds to dig and puddle, and natural climbing and hidey holes.

Advice to other schools

- Parents of the different cultures represented in the school can offer invaluable advice and experience.
- It is also worth contacting organisations such as the Black Environment Network who can provide useful information on planning multi-cultural projects.
- It would have been useful if the school had established a committee to oversee the project and to carry out the necessary administration, but as parents change so frequently in a nursery school, it would have been difficult to implement.

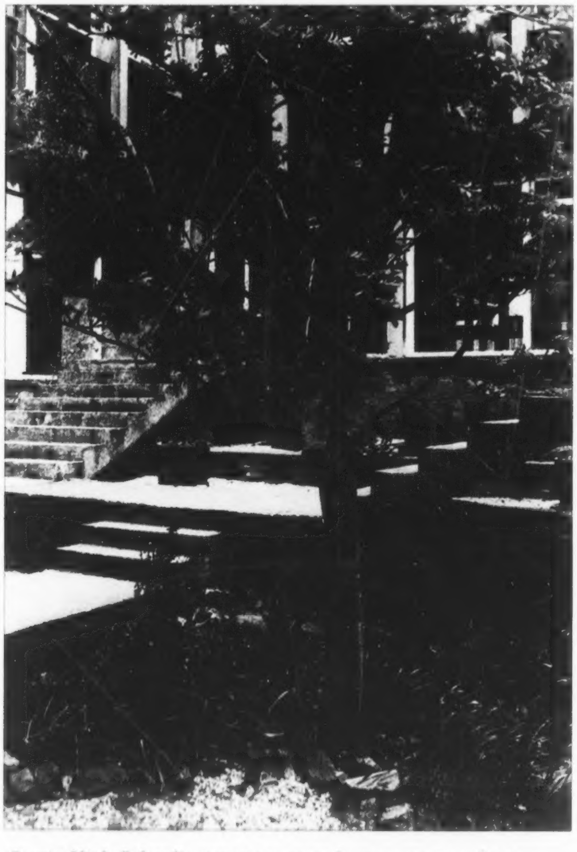
Children relaxing at break time in the Park Place Nursery garden.

The school's World Garden has a variety of plants to stimulate all the senses.

Extended Case Studies

5

- *In Chapters 2 to 4 case studies relevant to key stages in the process of school grounds development have been chosen. In this chapter the achievements of five different schools are recorded in a little more detail with an overview of their projects.*



Currie High School's inner courtyard - now an "outdoor classroom".

Underbank Primary School, South Lanarkshire

The school

Underbank Primary School is a small, rural school situated in the Clyde Valley at Crossford, South Lanarkshire. The school was built pre-1930s and has a roll of ninety-eight pupils. Although the site is surrounded by leafy orchards of apple and plum trees, the grounds of the school are on a slope and entirely of tarmacadam, with the exception of two mature trees growing along one perimeter fence.

How the project started

In 1993 all the pupils in the school were asked to complete a questionnaire, prepared by the teachers, about different aspects of their school. One result of the survey was that it was clear that the children were not happy with their school grounds. Their ideas about the sorts of improvements they would like to see included a safe area to play, consisting of grass rather than hard tarmacadam, combined with an environmentally friendly garden to encourage more wildlife into the school site.

The outcome of this was that pupils, teachers and the school board together set about transforming the grounds to meet the children's requests. The improvements would not only provide a better play area for the children and a refuge for wildlife but would also serve to enhance the appearance of the school and provide a formal curriculum resource.

The planning stage

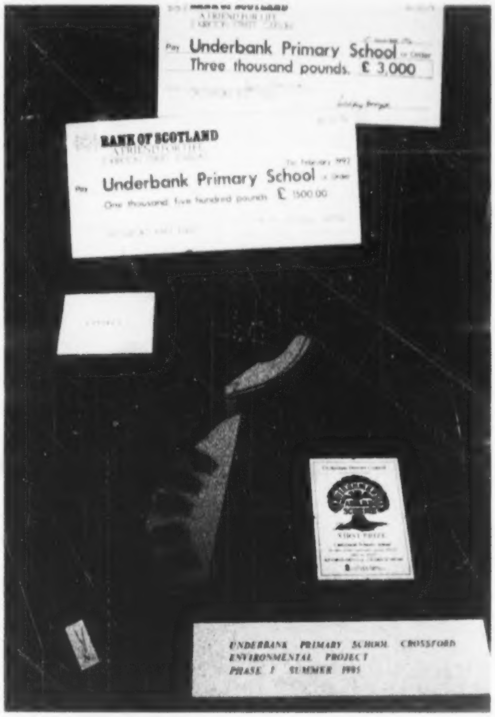
The school board set about drawing up plans based on the children's ideas and designs. Making use of the professional architectural and surveying services of the chairman and vice chairman of the board, detailed drawings and a scale model were prepared and put before the children and staff for their comments. Amendments were made and the final set of plans was submitted to the Planning, Building and Health and Safety Departments to comply with regulations.

The next stage was to explore possibilities for funding and to secure expert advice on the environmental aspect of the project. The former Clydesdale District Council Environmental Offices, Scottish Natural Heritage, Central Scotland Countryside Trust, Clyde and Avon Valleys Project and Scottish Wildlife Trust were all extremely helpful and supportive of the project. A detailed costing indicated that the project would cost around £9000. Finance was to be raised in two ways – by local fundraising and by grants from the above organisations.

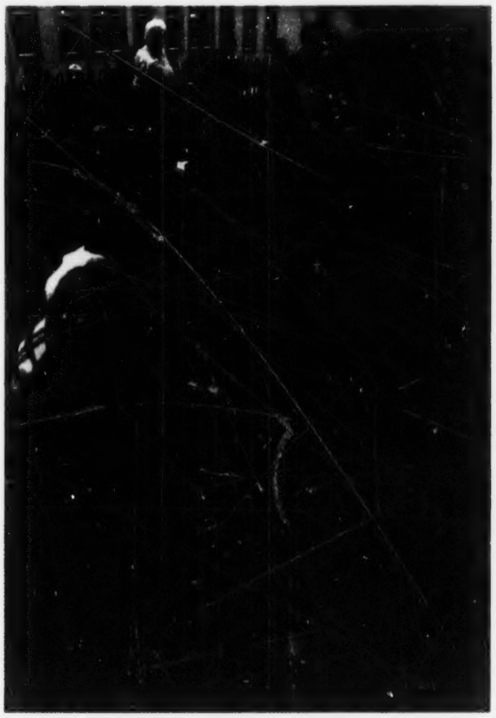
The whole school enthusiastically embarked on an eighteen-month period of fundraising which realised over £4000. The two major events were a folk concert, the programme for which was sponsored by local businesses, and a ceilidh in the local hall. These were well supported by parents and the local community. Crossford Raft Race Committee generously donated £2500. Firm offers of grants made up the deficit.

IMPLEMENTING THE PLAN

Before the summer break of 1995 the site was laid out in preparation for work to commence. The children started by constructing bird-boxes and bat-boxes which they attached to trees within the school and the surrounding area. During the first week of the holidays, heavy plant was brought into the grounds for the excavation and landscaping. Tarmacadam, ash and soil were removed, the site area levelled, drainage put in place, a pond


Underbank Primary School
Three thousand pounds. £ 3,000
BANK OF SCOTLAND
Underbank Primary School
One thousand five hundred pounds £ 1500.00
UNDERBANK PRIMARY SCHOOL CROSSFORD
ENVIRONMENTAL PROJECT
PHASE 1 SUMMER 1995

A scale model of the school grounds makes the proposed improvements more visual to everyone.



Pupils and teachers gather around the new Underbank pond.

constructed, kerbing and paving laid, railings and gates erected around the pond and top soil and turf laid. Supervision, ordering and delivery of materials were carried out to a precise schedule in order to finish on time for the children returning in August. Valuable assistance in the work was given by many people from the local community.

When they returned to school at the start of the new term, every child was involved either in planting trees, bushes, shrubs, bulbs, pond and bog plants or in sowing meadow grass. They also assisted in gathering one-and-a-half tonnes of washed stones from the nearby River Clyde.

As a result, there is now an environmental garden which should encourage wildlife into the grounds, a large grassy play area with carefully thought-out drainage, a paved area with picnic tables, a pond and a more formal garden. As was intended in the original plans, the site developments will be maintained and managed by the school, including teachers, pupils, parents and volunteers.

Celebrating achievements

A grand opening ceremony was held in October 1995, when local people, parents, friends and local dignitaries were invited to the formal opening of the new grounds. A time capsule, to be opened in fifty years' time, was buried in the garden and a small plaque was unveiled to celebrate the opening. In addition, every child in the school let off a helium-filled balloon with their name attached to it. Tea and sandwiches were provided for the hungry guests. The event provided a useful opportunity to obtain some local publicity and additional support, and above all it was a great celebratory event for the children to experience.

The benefits

Although still in its early stages of development, this project will eventually provide a useful resource for 5–14 Environmental Studies and other areas of the curriculum. Already it is being used in a number of ways. The children now have a grassy area for informal play activities, with picnic tables which can be used either informally at break and lunchtimes or more formally as an outdoor classroom area.

The local community has been involved in the project and the school is seen very much as a focal point in the community. Groups such as Brownies, Guides, Scouts and local youth clubs will be able to make use of the area after school. Few problems have arisen in the planning and implementation stages of the project and the school has been very successful at raising funds for the improvements.

Future plans

Now that the first phase has been successfully completed, the school is looking at plans for the future. These will include the creation of a small garden area alongside the existing mature trees next to one perimeter fence, and the painting of games markings on part of the playground area. The children will be invited to suggest how this should be done and will also be involved in the designs for both areas.

A final word

Underbank School is justifiably proud of its improvements to the site. The pupils have become more aware of what is happening on their doorstep and are very excited about the project. Every child planted a tree, a shrub or a bulb in the garden, which means that they all now have a sense of ownership and this will help them take a pride in and look after their garden. The whole school has benefited by turning its grounds into an area that is not only aesthetically beautiful but is also a valuable teaching resource for all staff and pupils.

Currie High School, Edinburgh

The school

Currie High School is a typical 1960s-style secondary school, located in Currie, at one time considered a rural village, but now very much a suburb of Edinburgh. Approximately 900 pupils attend the school. The site is surrounded by housing, farmland and a small remaining woodland strip. The school grounds are very varied, with extensive playing fields, some tarmacadam and grass areas and an inner courtyard, described by the school before improvements were made as a 'concrete desert'. The woodland strip adjacent to the school was formerly neglected, with dying trees, dumped rubbish and much litter.

How the project started

The initial impetus for environmental improvements to the school grounds came from the pupils themselves when, in 1989, they were inspired to enter a competition organised by BT and Lothian and Borders Police. A group of senior pupils planned to spend part of their summer break on a project to benefit the local community. They proposed to clean up the strip of neglected woodland, and the burn running through it, which formed the boundary between the school and a neighbouring housing estate. Known as the Curriehill Strip, it is some 200 metres long and is the last remaining section of an ancient ash/oak/elm woodland stretching from the Pentland Hills to the Firth of Forth. In recent years it had become a local dumping ground and was badly neglected.

CURRIEHILL STRIP
A Wood for the School and Local People

Pupils from a local primary school enjoy the Curriehill Strip nature trail.

The pupils put their proposal to their teacher, who was rather sceptical about the idea because of the magnitude of the task. However, undeterred, the pupils went ahead, and on returning from the summer holiday, the teacher was amazed at what they had managed to achieve, all on their own initiative. They had demonstrated the feasibility of the project and also the potential of the area as a wildlife habitat.

Achievements

Several years on, the community now has a charming woodland and clear running burn, with paths throughout the site. Dead elm trees are being removed and replaced with different native trees to support a variety of wildlife. The success of the original project led other pupils to get involved and other initiatives to develop in the school. One such development has been the planting of over 600 trees around the perimeter of the site to try to provide better protection from the wind and to act as a wildlife corridor link.

Part of the janitor's garden has been turned into a wildlife garden featuring a natural meadow, trees and shrubs. Hedging has been planted around the edge of the garden to act as a protective boundary. In 1994, the hay from the meadow was cut and sold as fodder and bedding to local pet owners. A tree nursery has also been developed in another area of the school site to raise native trees from seed which can then be planted out in the Curriehill Strip.

The 'concrete desert' courtyard has been converted into an outdoor classroom with two ponds and a frog valley. This latter feature is a damp, low-lying zone where froglets settle and overwinter under logs and vegetation. It is hoped that a small pond close by will be used by breeding pairs for spawning. The larger pond is used by the pupils for pond dipping and is surrounded by a marsh garden. There are tubs and areas of planting that include ferns, fungi and flowering plants. These assist in the teaching of plant classification.

The school has kept detailed records of the improvements that have been undertaken, including photographs, pupils' written and art work and a short video. Staff and pupils have welcomed other schools for visits and in-service sessions and in 1993 the school was the venue for a visit by the Scottish Environmental Education Council annual conference in a study of 'The Outdoor Classroom 5–14 and Beyond'.

Management and maintenance

The school has set up its own group of 'Green Rangers' to help maintain and develop the environmental projects. Plans for extending and maintaining all the improvements undertaken so far are continuously reviewed by staff and pupils. The Rangers devote time after school and at lunchtimes to the projects and also spend their free Wednesday afternoons maintaining and developing the sites. They are overseen by Mrs Rowlie Walton, a former Biology teacher at Currie, who continues to play a very active part in the management of the various projects, although she is now retired. Numbers vary but there are currently about ten Rangers, from S1 through to S5. All Rangers are involved in both practical work and planning improvements to the site. Further volunteers from school and community are recruited for specific tasks, as required. A group of pupils working towards their Duke of Edinburgh's Award also help out with maintenance, particularly with the formal front garden.

The future of the woodland strip has been assured and there is now a Curriehill Strip Management Committee, consisting of school staff and pupils, and representatives from the local community, statutory bodies and voluntary organisations. The Committee oversees the management of the woodland.

Pond dipping in the school's courtyard garden "outdoor classroom".

Maintenance of the grounds is undertaken jointly by outside contractors and the Green Ranger squad. Some problems occurred early on, such as when the contractors accidentally mowed down the wildflower meadow. But, on a more positive note, the contractors replanted small trees lost in the mix up, helped create paths and steps in the woodland and have supplied trees and signs for specific areas. The relationship between school and contractor is now a very beneficial one.

Support and funding

Advice has been obtained from various outside organisations, principally from Edinburgh Wildlife Group, Edinburgh Greenbelt Trust and various representatives from both the former Lothian region and the local district council. The school has also received practical help from students at Edinburgh University, Scottish Conservation Projects volunteers, the Woodland Trust and the Pentland Ranger Service.

Funding for improvements has come from a number of sources, including the PTA and school funds, the former Lothian region's 'Grounds for Awareness' scheme, prize money from various awards, and local donations. Help in kind has also been provided by various people and organisations. The whole project to date has cost about £3000.

Problems

There has been a small amount of vandalism to newly planted trees in the woodland strip and litter is a constant problem as it blows in from outwith the area. But apart from this, problems have been few and improvements have taken place with relative ease.

The benefits

The environmental improvements that have been undertaken at Currie have received welcome recognition and support, both locally and nationally. The school has won awards and commendations from Edinburgh Natural Environment Award (1996), BT Young Naturalists for Scotland (1995), the

Edinburgh Greenbelt Trust Award (1993), Shell Better Britain Campaign and the former Lothian region's 'Grounds for Awareness' scheme.

The project has been instrumental in improving links with the local community. The Currie Community Council has provided seating, signs, materials and labour for the woodland and representatives of the council sit on the Curriehill Strip Management Committee. A number of pupils and the headteacher also regularly attend community council meetings. This relationship bodes well for future mutual support between school and community. As a result of the environmental improvements it has undertaken, the school has earned the respect of its immediate neighbours.

Perhaps most important is the fact that a valuable learning experience has been provided and a curriculum resource created for the pupils. For example, developing the various areas has promoted in the pupils a clear understanding of the need for restraint in the use of natural resources. It has also provided a practical demonstration of the power of individuals and groups to make decisions and has engendered respect for the immediate environment.

The areas are used by a number of departments in the school, most notably for Environmental Studies, standard grade Biology, Art and Geography. A short 13-week rotational course for all S1 pupils, called the Environment Course, has been developed to make full use of resources on site. This introduces pupils to the concepts of interdependence of living things and of our responsibility to moderate our influence on the environment and to replace lost habitats. It provides hands-on experience of the major projects and culminates in the completion by each pupil of a specific project. An example is the short video about the woodland strip made by two S2 pupils as part of their project: it documents the history of the project and features interviews with those involved. The Environment Course is well resourced and pupils show clear evidence of enthusiasm, commitment and enjoyment.

As a result of the improvements the pupils have a pleasant wood in which to play and socialise and the enhanced appearance of the school makes it a more pleasant environment for everyone. When the school was reviewed in December 1995 by the Local Education Authority Quality Assurance Section, a report commented on the site most favourably:

'The positive, creative approach to environmental issues is clearly having a very beneficial effect on the school ethos; there is little graffiti or deliberate damage and litter is well under control. The school's reputation for environmental work is clearly well founded.'

Future plans

The high priority and publicity which the school's environmental projects enjoy has significantly influenced the planning of refurbishments to the whole school site, which began in December 1995. Plans include upgrading teaching spaces, getting rid of the many huts on site, making a more welcoming entrance and developing the second courtyard area with seating and a greenhouse. There are plans to continue to develop the wildlife corridor of trees and shrubs around the perimeter of the campus. In addition it is hoped to establish a walled garden and a nature trail in the woodland.

The Green Rangers have designated 1996 as the 'Year of the Oak', so extensive oak tree planting will take place in the woods and trees will be grown on from acorns in the tree nursery. The school also participated in activities to promote the curriculum use of the woodland on School Grounds Day in May 1996.

A final word

The headteacher, staff and pupils active in the grounds projects at Currie High School cannot emphasise enough the value of the work they have been involved with. Similarly, the retired teacher, Mrs Walton, feels privileged still to be a part of it all and hopes that other schools will see what can be achieved and the enormous benefits to be gained by everyone.

School Grounds Day, 1996 in the Curriehill Strip woodland.

High School Yards Nursery School, Edinburgh

The school

With a roll of forty and situated in a very confined urban location perched on top of the Flodden Wall in Edinburgh, High School Yards Nursery School has sought to make the most of its site. The building dates from the early 1900s and the grounds originally consisted of a barren hilly slope, a courtyard and a dusty play area. The school buildings once housed a university settlement and are built round a small triangular courtyard, which serves as an extension to the children's play space, as well as being a container garden and plant nursery. The courtyard is very sheltered, making it a real sun trap, in marked contrast to the sloping area, which is exposed to cold winds off the North Sea.

Children and staff at work in the school's courtyard garden.

How the project started

The school grounds development project, which began in 1989, came about as the result of a rather unusual incident. Pupils discovered some stripy caterpillars in the playground and asked how they could encourage more wildlife into their school. Staff also wanted to provide a wider range of resources for the formal curriculum as well as a more interesting and enjoyable outdoor environment. So the scheme began. It was hoped also that by making the school a more appealing and attractive place to work, there would be an improvement in behaviour in and out of the classroom. In addition, staff wanted to provide the children with the practical experience of improving their immediate environment and investigating food chains.

Planning and management

From the staff's observations in the outdoor play areas, it became apparent that children were very interested in birds and minibeasts. As a result of this, in collaboration with Edinburgh Wildlife Group, a decision was made to create a wildlife garden on the barren, hilly slope above the Flodden Wall. By planting trees, shrubs and wildflowers on this site, it was hoped to attract birds, butterflies and other wildlife into the garden.

Real life hands-on experience at High School Yards Nursery, Edinburgh.

From the early stages, pupils, parents and all the school staff were involved in the planning process and they looked at the potential of the whole site from the outset.

The local community was also actively involved. Everyone took part in planning and choosing plants, trees and bulbs for the wildlife and courtyard gardens. Parents also give a hand in the general maintenance of the garden and are fully involved in the planning and participation of all visits to the wider environment outside the school.

Gill McKinnon, the headteacher, is the main co-ordinator of the project and the enthusiasm of the children, staff and parents has increased as the results of the work have become apparent. The project has been integrated into normal curricular planning procedures. The nursery school follows the former Lothian region's 'Early Years Curriculum' document, which involves daily, weekly and longer-term planning. As part of the project, staff observe children's interests and plan appropriate activities to extend these interests. This includes hands-on experiences in Environmental Studies, which links in with the development of the gardens and with curricular initiatives inside the playrooms. It is also linked to visits outwith the school to places such as local farms.

Support and funding

Expert help was required to guide the project from the start and this was received from Edinburgh Wildlife Group (EWG). The EWG education officer, Sudheer Carroll, worked with children, staff and parents during the initial planning stages to help them develop the use of the school grounds. Ongoing advice and support was available from EWG on a monthly basis over the first two years. As confidence and understanding increased, the staff and parents were able to plan, initiate and maintain further projects themselves in order to develop the children's learning opportunities.

Support was also received from volunteers from Scottish Conservation Projects, as well as the local authority's Grounds Maintenance Unit. Parents and friends of the school came along to help in practical ways and continue to be involved in the maintenance of the grounds, along with the pupils. The maintenance aspect of any new feature is considered at the outset in order to ensure that the school will be able to afford both the time and money that will be needed at a later date.

In addition to financial support from sources such as the former Lothian region's 'Grounds for Awareness' scheme, help in kind was plentiful, with parents and local community members donating old sinks, wooden tubs and a wide variety of seeds and plants. To date, the project has been relatively low cost, with only £500 being spent in total. Most of the materials needed for the gardens have been donated free of charge by various people and organisations. Initially, some financial outlay was required to buy wildflower seeds, cereals, seed trays, potting compost, and so on. The finance for these purchases came from school funds, which is money raised by parents to be spent on a wide range of resources for the benefit of the whole school.

Achievements so far

The former barren, hilly slope has been transformed into a wildlife garden with a number of features designed to attract wildlife. These include an area of wildflowers, a small woodland with a variety of trees (goat willow, beech, rowan, alder, oak and wild cherry) and a tiny cornfield area. Here the children assist in a regular bird-feeding programme in winter and enjoy minibeast hunts and just being able to wander amongst trees, shrubs and wildflowers.

A former dry, dusty space has been developed into an outdoor play area with climbing equipment and safety surfacing. In addition, paths, walls and a patio have been constructed to provide maximum opportunity for learning and play.

A courtyard garden with tubs and sinks provides a wide variety of plants and colour for everyone to enjoy. A regular summer activity is the cereal-growing project, in which oats and wheat are grown, then harvested and used in school in the autumn to give the children a better understanding of their own food chain. A more recent introduction, in one of the courtyard planters, is the growing of cuttings from the famous Kippen vine, which has been donated to the school by Kippen Environment Centre.

The school's wildlife garden - perched on top of the city's Flodden Wall.

A curriculum resource

The wide variety of new resources are being used across the whole curriculum in a cross-curricular way. Children are learning the basis of Environmental Studies through such activities as winter bird feeding, investigating minibeasts, planting and growing, establishing an outdoor aquarium for frogs, and cereal growing. Through farm visits links have also been established with the wider environment. In the process, children are extending their use and understanding of English language.

For the beginnings of Mathematics, the garden provides young children with the experiences of looking at colour, shape, counting, matching, sequencing and simple measuring. In Expressive Arts, the grounds are used for a variety of projects and they also have a significant role to play in personal and social development and in religious and moral education. Links have been made between the Early Years Curriculum (3–8) and 5–14 Environmental Studies. Weather permitting, the whole site is accessible throughout the day and this results in many child-initiated activities and valuable learning-through-experience outcomes.

Other benefits

Involvement of the children in the process of changing the school grounds and in using and maintaining the newly created areas has brought about the hoped-for improvement in overall behaviour and increased learning opportunities. In order to help other schools, High School Yards has published a book containing details of some of their school grounds activities; The Wee Green School Pack (see Chapter 6: Useful Resources) was produced with support from the Royal Mail, Scottish Natural Heritage and the former Lothian regional council. The school also has a short video on 'Greening the School Yards' which is very informative, and Mrs McKinnon writes a small weekly column in the Edinburgh Evening News, detailing the children's activities.

A pupil enjoying oxeye daisies in the wildlife garden.

The school grounds project has made a huge impact upon the school, with the whole school ethos being improved. Children are now able to make their own discoveries on site and are able to experience the changing seasons through changes in the weather and the plants. They also have a greater understanding about our dependence on plants for food as they see how wheat begins life as a seed and ends up being eaten as bread. The children collect seeds in the autumn and replant them the following spring. Extra seeds are donated to other schools so that they can develop their own similar projects.

Another effect of the project has been the tremendous enthusiasm and support it has generated amongst parents and the local community as a whole. The grounds are frequently visited by other teachers beginning or expanding their own site developments, whilst the increased media coverage has resulted in the school achieving a much higher profile. The school is used by other Edinburgh teachers as a base for in-service courses in Environmental Studies, run by the headteacher.

Fortunately, the school has suffered only minimal vandalism. There is no access into the school out of hours, but on a few occasions vandals have climbed over the roof.

A final word

The school grounds project at High School Yards continues to develop, with a curved wrought-iron trellis work and another large planter for the Kippen vine being the most recent additions to the courtyard garden. The headteacher and staff are pleased with the way the project has developed and feel that the whole thing fell nicely into place! The involvement of the whole school and the local community has been a vital element in the project's success. This, the staff feel, is the key to any school grounds development.

Kingspark Special School, Dundee

The school

Kingspark School is a special school for children aged five to eighteen. All the pupils have learning difficulties, ranging from moderate to profound and complex, and many have additional physical or sensory impairments. There are 175 pupils on the roll, from all over the region, and a staff of approximately forty teachers with additional care staff. Kingspark is situated just north of the Kingsway, Dundee's major ring road, and is on the edge of a large housing scheme.

The school building is fairly modern (opened in 1976) and has extensive grounds, mostly laid to grass. There is a tarmacadam play area, which is sheltered from the worst of the wind and has a sunny aspect, and a small 'playpark' with tyre swings and a slide set into a grassy bank. Tarmacadam paths allow children who wouldn't be allowed out on bikes at home to enjoy cycling at school. There are adequate car parking facilities for staff and visitors, some formal shrub beds around the school building and many mature trees around the perimeter of the grounds.

How the project started and developed

Environmental studies have always been central to the curriculum at Kingspark and the children are encouraged to learn by a 'hands-on' approach. In about 1990, the staff realised that the school grounds were a valuable but largely untapped resource and they began to look for ways of developing the area. Initially, only one or two teachers were involved, but gradually, other staff have joined in and have come up with new ideas.

The development of a sensory garden in raised beds near the main door of the school was the first phase of the project. Older pupils were involved in constructing the beds (using timber prepared by inmates at Perth prison), researching suitable plants and planning the layout. They went shopping to local garden centres for tools, seeds and plants, and managed to secure quite a few 'bargains'. The garden has been designed to allow wheelchair access and has seating for visitors so that they can enjoy the area. The beds are now being developed as separate sight, smell, touch, sound and taste beds and a small bubble fountain is planned to provide an exciting sound feature.

The sensory garden at Kingspark school is very popular with pupils.

Since these early days, Kingspark staff and pupils have gone on to develop a wildlife area, planted with native trees and wildflowers. Every mature tree in this area now has a bird-box (produced by pupils in the technical department) and bird-tables abound outside classroom windows. Wheelchair access to the wildlife area is by means of a solid path, and a stone cairn marking this development is decorated by a tiled plaque produced by the pupils.

Other developments in the grounds include picnic tables and benches (one, constructed by pupils from a nearby secondary school, was a prize-winning exhibit in the 'Ideal Homes' exhibition), minibeast habitats, an area for vegetables and 'butterfly' plants and a small memorial grove of cherry trees. In autumn 1995, retired members of a local Rotary Club helped the children to plant several hundred crocus bulbs near the main drive into the school. A very popular innovation has been the safe play area (a bit like a giant play pen, with rubber surfacing) where children with balance problems, or those who have no awareness of danger, can play in safety.

In addition to the fountain, plans for the future include a drystane dyke, a compost heap and more 'wild' areas, including a boggy garden to encourage wildlife. Staff feelings about a pond are divided between the enthusiastic and the very cautious, so at present it is not a feasible project. The headteacher would like to have a large adventure play area for the children, but vandalism in the evenings is a major problem, so this idea too has had to be shelved.

Pupils enjoy feeding the birds in the winter months.

Funding and support

Raising funds has not been too much of a problem. The School Fund Committee has successfully managed to attract funding from a variety of sources as and when the need arose. Local businesses have been generous and many donations have come in unsought as word got around about what the school was doing. Funding has also come from the Royal Anniversary Trust, Scottish Natural Heritage and the Scottish Wildlife Trust (in association with BT).

The children have raised considerable sums themselves through various enterprise activities, such as bulk-buying peanuts, bagging them and selling them throughout the school and beyond. (It is hard to get out of Kingspark without buying something: the sales force is keen!) Advice and help with planning and practical work has come from SNH, SWT, the local Countryside Rangers and the former Dundee Parks Department.

Management and maintenance

The main business of planning tends to be undertaken by staff in association with outside agencies. Most of the pupils have severe learning difficulties and it would be over-ambitious to expect them to have a great deal of input in the initial stages. However, many of the ideas for developments have come from pupils and they are involved in decision-making whenever possible.

Maintenance of the grounds is undertaken partly by the pupils and staff, who look after areas that they have developed, and partly by the council Grounds Maintenance team, who deal with the grass areas and formal beds. There have been a few hiccups, as when the first compost heap (an old sandpit) was filled in and grassed over during the school holidays, and when the minibeast log pile was removed by one of the maintenance staff who thought it was 'just dead wood'. On the whole, however, the arrangement works well. Many classes now have their particular area or raised bed to look after throughout the year, and after the six-week summer break, a concentrated effort is required to get things into shape once more.

Problems

Vandalism can be a problem in the area of Dundee where Kingspark is situated (though the janitor and his wee dog are a great help). Not many of the school's pupils live in the immediate locality, so there is not really a feeling of local 'ownership'. This problem is common to many special needs schools, which tend to have a wide catchment area and therefore few local parents. Local involvement often helps to reduce vandalism because residents who are involved in a project are usually prepared to keep an eye on the site.

A Kingspark pupil busy watering his potato crop.

Maintenance problems sometimes occur if the pupils in any group are not able to do as much practical work as, say, the previous year's group. But the staff believe it is important for the children to take responsibility and to feel that the success of the project depends on them. A little extra help from outside groups, such as Scottish Wildlife Trust workers, keeps the children's enthusiasm going.

The benefits

Everyone involved with Kingspark enjoys the enhanced appearance of the school. The sensory garden by the main door is much admired by visitors, and in good weather it is often used by waiting parents and visitors as an alternative to the school's reception area.

In terms of the curriculum, the benefits to the pupils have been immense. For pupils with profound and multiple disabilities, there are improved facilities for wheelchair walks, for sensory stimulation and for social experiences. Learning about the environment of the school and learning to care for that environment have become an integral part of the curriculum for the majority of the pupils, and the related benefits in such areas as practical Maths, real-life letter writing, and Art and Craft work, have been substantial.

Working out of doors has provided an ideal opportunity for pupils to develop practical skills that could be the basis for an ongoing hobby or even future employment. The older pupils particularly enjoy the practical work and the social aspect of working with adults from outwith the school. They feel valued and grown-up when they are given responsibilities and involved in decision making. This ties in with their preparation for leaving school, work experience, college links and so on.

Staff at Kingspark also mention the increased range of activities that the pupils now have access to in school, as well as the social benefits the children derive from working together and the pride they take in showing the various projects to others in the school and to visitors. Self esteem has risen to new heights.

Kingspark is involved in the Scottish Environmental Education Council's Stewardship Scheme and was presented with an award in 1995 for its environmental education work. This referred particularly to the school grounds development, but also recognised the school's efforts in energy saving and can and paper recycling. This was also the year in which Kingspark organised its first horticulture show, which saw pupils and staff competing in various classes, such as vegetables, mini-gardens, flower arranging, baking and craft work. The staff hope to hold one major 'environmental' event each year. In May 1996, they celebrated 'School Grounds Day' in a big way.

A final word

In looking back on the school's achievements, the headteacher feels that what they have managed to do at Kingspark has been extremely valuable for both the pupils and the whole school community. To any other school contemplating such a project, she suggests that, if possible, it might be better to get more staff members involved right from the start in order to share the workload. However, even if only one or two people are enthusiastic, it is well worthwhile going ahead anyway: school grounds are too valuable to waste.

Blackfriars Primary School, Glasgow

The school

Blackfriars is an urban primary school, located in the Gorbals area of Glasgow. It has a roll of 235 pupils aged between five and eleven. Built in the 1960s, the school has tarmacadam playgrounds and some grass areas with adjacent playing fields.

How the project started

In 1991 the School Management Team, which consists of the headteacher, Mrs Marjorie McLennan, and two senior teachers, recognised that a number of needs were not being met by the school and its grounds. The school entrance was unattractive and there were problems associated with vandalism and anti-social behaviour by pupils, particularly at playtimes. The team felt strongly the need to create a total learning environment for the children and to make the school a positive focus for the community. In addition to attracting wildlife on to the site, it was hoped that the school grounds project would result in more resources for both play and formal curriculum activities.

Planning and management

Initially, teachers held a brainstorming session on an in-service day to start thinking about the grounds. The first priority at Blackfriars is to the children, so they were brought into discussions at an early stage. Parents were also involved, primarily through discussion, and everyone worked together to make the project happen. The staff needed support particularly in all the practical aspects of the developments and this was provided by the management team and the pupils and parents.

Once the initial plans had been drawn up, the school management team co-ordinated the many different aspects of the project. Strong links have been established between the development plan and curriculum planning in order to ensure that the school grounds are used to their full potential.

Support and funding

To supplement the work of the school community and the commitment from the school budget, outside help and funding were sought. Since the school comes within the area of the Gorbals Initiative it was able to take advantage of funds and support through this scheme. This proved to be an enormous enabler and pointed them in the direction of a number of useful contacts. One example of such support was the chance to work with Russell Landscapes, an organisation that offers landscape design advice as well as help in the form of skilled labour. Local unemployed people who take part in this scheme learn new skills and many have gone on to find employment.

The school also worked jointly with the Junior Chamber of Commerce and with Donaldson Edwards Partnership, a firm of architects, in a project to improve the playground. In addition, support for some aspects of the scheme came from local businesses such as Scotrail and Marks and Spencer. This included help in kind as well as funding.

Achievements so far

Although a different feature has been tackled each year, the school considered the whole site at the very beginning of the scheme. In the first year, a welcoming entrance to the school was created through the development of a garden area containing colourful shrubs, spring bulbs and annuals.

Since then developments have included a pond and garden designed to attract wildlife, nesting boxes and feeders to encourage birds, 'bug rugs' (carpets left in certain parts of the grounds to attract various minibeasts for study), a vegetable garden and a compost pile. Seedlings for the vegetable garden are cultivated from

Pupils looking for mini beasts under the school's "bug rugs".

The janitor helps pupils recycle paper at Blackfriars Primary School, Glasgow.

seed by primary five's enterprise project – Blackfriars Seed Growers Inc. – and then planted out into the garden areas. Footpaths have been included in all the developments to allow easy access and use by pupils, teachers and visitors to the school. Art has also been celebrated outdoors with the creation of painted murals in an old shelter in the grounds. All these developments have helped to provide a valuable learning resource and the site is now well used for all aspects of the 5–14 curriculum.

Other projects have developed along the way which contribute to the school's wish to encourage the children to be proud of their achievements. The can and paper recyclers have obvious environmental links. However, in a wider context of caring, the school is now involved in a scheme to collect stamps to help fund guide dogs for the blind and in other schemes to 'adopt' children in less favoured countries, as well as whales and donkeys.

With respect to play, staff recognised the importance of playtimes in providing opportunities for children to develop new attitudes and values and, in doing so, build their confidence and self-esteem. Through the school's involvement with the Gorbals Initiative and the Junior Chamber of Commerce, pupils were able to work with the local architects and landscape architects mentioned earlier in a project to develop improved play facilities on the site. The outcome is specially constructed play equipment, incorporating the pupils' ideas and based upon a rainforest theme. Its use is carefully timetabled so that all pupils have an equal chance to use it. Loose equipment such as skipping ropes, balls and hoops are also readily available and older children now teach the younger classes new games and activities.

The rainforest play equipment is very popular with all the pupils.

In keeping with the school's desire to become a positive focus within the local community, a bakery and 'Drop-in Cafe' have opened on site, staffed by parents between 2.30 and 3.00 p.m. In addition, breakfast is available for children arriving early at school and this facility is also extended to parents.

Maintenance

The staff, pupils and parents work together in maintaining the grounds and have found that this is preferable to using the local authority Grounds Maintenance teams. The school has its own grass cutter and a system involving 'maintenance gangs' operates to keep the grounds under

A maintenance "gang" gets down to weeding the raised garden.

control. During the growing season, twenty minutes a day is spent on maintenance work by the various class 'gangs', each dealing with an area of responsibility. After six weeks on one area, jobs rotate so that no one gets bored or fed up, but at the same time they spend long enough on each job to learn the importance of what they are doing. This helps in raising awareness about environmental issues and in teaching about life skills. As the school is located in a Priority Area of Glasgow, where parents often lack these skills, this provides an important learning opportunity the children might not otherwise experience.

The benefits

There has been a significant increase in the level of parent interest in and involvement with the school since the start of the project. The desired objective of positively influencing the children's personal and social development has been achieved and pupils are now more strongly motivated to care about their school, their community and the wider world. Vandalism, which could have become a major problem, has been non-existent. By involving local unemployed people in projects in the grounds, most significantly in the development of the rainforest play equipment, the school is seen very much as the centre of the community and everyone wants to be involved. Barbecues are organised for parents and friends during the summer and have proved to be a great success.

This enhanced level of interest and support has resulted in the school's popularity increasing and the school roll has been steadily growing. The theme in the school for 1996 is 'Building a Better Future' and this is certainly evident in the ethos of the school.

Future plans

A number of new projects are planned for the future. These include a Sound and Art Garden with mosaics and a maypole, an outdoor theatre area for both formal and informal open-air productions, a trim trail to encourage personal fitness and a 'crystal maze', an outdoor problem-solving area to encourage teamwork. Other possible future developments include a weather station, a community garden with a seating area and painted playground games.

A final word

When asked if they would do things in the same way if the project was to be started all over again, the school's unanimous verdict was 'yes'. The project was begun in a small way, and as enthusiasm and commitment grew, it developed more rapidly and successfully. The headteacher and staff strongly believe that the school grounds improvements are as much about personal and social development as purely environmental change.

The Currie High School courtyard pond, Edinburgh.

Pupils at Blackfriars Primary School are definately happy!

Geography outdoors! Tollcross Primary School, Edinburgh.

6

Appendices

Appendix 1

- *Useful Resources*

Appendix 2

- *Useful Organisations*

Appendix 3

- *Reference chart of projects featured in this book*

Compass rose, Prestonfield Primary School, Edinburgh.

BEST COPY AVAILABLE

Useful Resources

A Guide to Resources For Environmental Education Author/Publisher: SEEC

Bright Ideas: The Outdoor Classroom
Authors: Brian Keaney & Bill Lucas. Published by LTL/Southgate

Can I Stay in Today, Miss? Improving the School Playground
Authors: Carol Ross & Amanda Ryan. Published by Trentham Books

Esso Schoolwatch: From Survey to Getting Started
Authors: Bill Lucas & Joan Wood. Published by LTL

Esso Schoolwatch: Initial Survey
Authors: Joan Wood, Bill Lucas & Marcus Grace. Published by LTL

Forvie Wildlife Conservation Group Information Sheets
(Wildlife Ponds, Native Trees, Gardening with Wildflowers & Growing Plants from Seeds)
Author: Forvie Wildlife Conservation Group. Published by Lighthouse, Aberdeen

Fundraising for School Grounds
Author: Bill Lucas & Anne Mountfield. Published by LTL/Southgate

Growing Naturally Author: Maggi Brown. Published by LTL/Southgate

Inside Outside
Authors: Cherry Mares & Robert Stephenson. Published by Tidy Britain Group

Let's Play Together: Over 300 Cooperative Games for Children and Adults
Author: Mildred Masheder. Published by Scottish Development Education Centre

A Guide to the Management and Maintenance of School Grounds
Authors: Joan Wood & Michael Littlewood. Published by LTL/Southgate

People, Plants & Places Author: Julian Agyeman. Published by LTL/Southgate

Play, Playtime and Playgrounds Author: Wendy Titman. Published by LTL/Southgate

School Playgrounds
Author: Fraser Brown. Published by National Playing Fields Association

Special Places; Special People Author: Wendy Titman. Published by LTL/Southgate

The Challenge of the Urban School Site Author: LTL. Published by LTL/Southgate

The SEEC Stewardship Scheme Pack Author: SEEC. Published by SEEC

The Outdoor Classroom: Building Bulletin No 71
Authors: B Billimore, J Brooke, R Booth & K Funnell. Published by HMSO Books/Southgate

The Wee Green School Pack Authors: Sudheer Carroll & Gill McKinnon
Published by (The former) Lothian Region Education Department

Will You Live Here Mr Bird? Author/Publisher: Aberdeen Urban Studies Centre

Wildlife and the School Environment Author: RSPB/LTL. Published by LTL/Southgate

VIDEOS

Grounds for Learning
Author: Scottish Natural Heritage. Available from: SNH, Battleby, Perth

Grounds for Celebration Author: LTL. Available from: LTL/Southgate

Grounds for Examination Author: LTL. Available from: LTL/Southgate

Maintaining and Managing your School Grounds
Author: LTL. Available from: LTL/Southgate

POSTERS

Making the Best of your School Grounds Author: LTL. Available from: LTL/Southgate

Learning Outdoors Author: LTL. Available from: LTL/Southgate

Useful Organisations

Black Environment Network
Regents Wharf
8 All Saints Street
London N1 9RL
Tel: 0171-713-6161
Fax: 0171-713-6300

Central Scotland Countryside Trust (CSCT)
Hillhouseridge
Shottskirk Road
SHOTTS
Lanarkshire ML7 4JS
Tel: 01501-822015
Fax: 01501-823919

Construction Industry Training Board
Pritchard House
Grays Mill
32 Inglis Green Road
EDINBURGH EH1 2ER
Tel: 0131-443-8893

Forestry Commission
231 Corstorphine Road
EDINBURGH EH12 7AT
Tel: 0131-334-0303
Fax: 0131-334-3047

Grounds for Learning Partnership
c/o Scottish Environmental Education Council
University of Stirling
STIRLING FK9 4LA
Tel: 01786-466570
Fax: 01786-467864

Keep Scotland Beautiful
Cathedral Square
DUNBLANE
Perthshire FK15 0AQ
Tel: 01786-823202
Fax: 01786-825732

LTL Trust
3rd Floor, Southside Offices
The Law Courts
WINCHESTER
Hampshire SO23 9DL
Tel: 01962-846258
Fax: 01962-869099

National Centre for Play
Moray House College
Cramond Campus
Cramond Road North
EDINBURGH EH4 6JD
Tel: 0131-312-6001 x 292
Fax: 0131-312-8979

National Playing Fields Association (Scotland)
20 Queen Street
EDINBURGH EH2 1JX
Tel: 0131-225-4307
Fax: 0131-225-5763

Royal Society for the Protection of Birds
Education Department
17 Regent Terrace
EDINBURGH EH7 5BN
Tel: 0131-557-3136
Fax: 0131-557-6275

Scottish Conservation Projects
Balallan House
24 Allan Park
STIRLING FK8 2QG
Tel: 01786-479697
Fax: 01786-465359

Scottish Consultative Council on the Curriculum
Gardyne Road
Broughty Ferry
DUNDEE DD5 1NY
Tel: 01382-455053
Fax: 01382-455046

Scottish Countryside Rangers Association
PO Box 37
STIRLING FK8 2BL

Scottish Environmental Education Council
University of Stirling
STIRLING FK9 4LA
Tel: 01786-467867
Fax: 01786-467864

Scottish Native Woods Campaign
3 Kenmore Street
ABERFELDY
Perthshire PH15 2AW
Tel: 01887-820392

Scottish Natural Heritage
Education, Training & Interpretation Branch
Battleby, Redgorton
PERTH PH1 3EW
Tel: 01738-627921
Fax: 01738-441897
(See your Yellow Pages for a local SNH office in your area)

Scottish Wildlife WATCH
Scottish Wildlife Trust
Cramond House
Kirk Cramond
Cramond Glebe Road
EDINBURGH EH4 6NS
Tel: 0131-312-7765
Fax: 0131-312-8705

World Wide Fund for Nature
Scottish Conservation Office
1 Crieff Road
ABERFELDY
Perthshire PH15 2BJ
Tel: 01887-820449
Fax: 01887-829453

Ae Primary	Dumfries & Galloway	Rural	Primary	1930-60	24	Mixture	Low	1994
Ardrossan Academy	North Ayrshire	Urban	Secondary	1930-60	1342	Mixture	High	1988
Baird Memorial Primary	North Lanarkshire	Suburban	Primary	1961-80	175	Mixture	Low	1992
Blackfriars Primary	Glasgow	Urban	Primary	1961-80	235	Mixture	High	1991
Bonnington Primary	Edinburgh	Urban	Pri/Nurs	pre-1930	289	Concrete	Mid	1992
Broughton Primary	Edinburgh	Urban	Primary	1896	330	Tarmac	Low	1994
Catterline Primary	Aberdeenshire	Rural	Primary	1930-60	66	Clifftop	Low	1985
Cauldeen Primary	Highland	Urban	Primary	1961-80	217	Mixture	Low	1992
Colquhoun Park Primary	Dumbarton East	Suburban	Primary	1961-80	230	Mixture	Mid	1994
Cranloch School	Moray	Rural	Special	pre-1930	18	Mixture	Low	1994
Crieff Road Pre-School	Perth	Urban	Nursery	1961-80	125	Mixture	Low	1993
Currie High	Edinburgh	Suburban	High	1961-80	900	Mixture	Mid	1989
Dunino Primary	Fife	Rural	Pri/Nurs	pre-1930	22	Tarmac	Low	1994
Dunning Primary	Perth & Kinross	Rural	Primary	pre-1930	88	Mixture	Low	1991
Evie Primary	Orkney Is	Island	Pri/Nurs	post 1980	90	Mixture	Low	1989
Gargunnock Primary	Stirling	Rural	Primary	1961-80	77	Mixture	Low	1992
Gillburn Primary	Dundee	Urban	Primary	pre-1930	370	Mixture	High	1989
Glenborrodale Primary	Highland	Rural	Primary	pre-1930	11	Mixture	Low	1988
Govan High	Glasgow	Urban	Secondary	1961-80	520	Mixture	Low	1991
Hawick High	Borders	Rural	Secondary	post 1980	1100	Mixture	Low	1992
High School Yards Nursery	Edinburgh	Urban	Nursery	pre -1930	40	Confined	Low	1989
Hyndland Primary	Glasgow	Urban	Primary	pre-1930	413	Mixture	Low	1994
Inverbrothock Primary	Angus	Suburban	Primary	post-1980	296	Mixture	Low	1993
Islay High	Argyll & Bute	Rural	Secondary	Mixed	279	Tarmac	Low	1994
James Aiton Primary	South Lanarkshire	Suburban	Primary	1961-80	167	Mixture	Mid	1988
Kelvin School	Glasgow	Urban	Special	pre-1930	35	Mixture	Mid	1991
Kingspark School	Dundee	Urban	Special	1976	175	Mixture	High	1993
Kippen Primary	Stirling	Rural	Primary	1930-60	107	Mixture	Low	1992
Leith Academy	Edinburgh	Urban	Secondary	1990s	n/a	Mixture	Low	1991
Linlithgow Primary	West Lothian	Suburban	Primary	Mixed	615	Mixture	Low	1991
Lugton School	Midlothian	Suburban	Special	1961-80	154	Mixture	Mid	1994
Lunnasting Primary	Shetland Is	Island	Primary	post 1980	29	Tarmac	Low	1990
Mossbank Primary	Shetland Is	Island	Pri/Nurs	1961-80	105	Mixture	Low	1993
Muiredge Primary	South Lanarkshire	Urban	Primary	pre-1930	314	Tarmac	Low	1994
Park Place Nursery	Dundee	Urban	Nursery	1961-80	144	Mixture	Mid	1992
Peel Primary	West Lothian	Urban	Primary	1961-80	411	Mixture	Low	1990
Perth High	Perth & Kinross	Suburban	Secondary	1961-80	1500	Mixture	Low	1993
Pitreavie Primary	Fife	Urban	Primary	1961-80	283	Concrete	Low	1992
Prestonfield Primary	Edinburgh	Urban	Primary	pre-1930	200	Tarmac	Mid	1993
Sanday Junior High	Orkney Is	Island	Pri/Sec	1961-80	75	Mixture	Low	1987
Sauchie Nursery	Clackmannanshire	Urban	Nursery	1971	160	Mixture	Mid	1995
Slaemuir Primary	Inverclyde	Suburban	Primary	1961-80	200	Mixture	Low	1993
St Andrew's RC Primary	Dumfries & Galloway	Urban	Primary	pre-1930	177	Tarmac	Low	1993
St Elizabeth's Primary	South Lanarkshire	Urban	Primary	1961-80	251	Mixture	Low	1993
Strathblane Primary	Stirling	Rural	Primary	1961-80	160	Mixture	Low	1994
Tollcross Primary	Edinburgh	Urban	Primary	pre-1930	230	Tarmac	High	1991
Underbank Primary	South Lanarkshire	Rural	Primary	pre-1930	98	Tarmac	Mid	1993
Wardie Primary	Edinburgh	Suburban	Primary	1930-60	416	Mixture	Mid	1989
Webster's High	Angus	Rural	Secondary	post-1980	725	Mixture	Low	1991

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Ae Primary	Small, whole school project with community input	Mural, tree planting
Ardrossan Academy	Nature reserve developed near school/curriculum use	Nature reserve next to school
Baird Memorial Primary	Community links/Norway links/strong curriculum	Wildlife garden
Blackfriars Primary	Strong community, partnership, curriculum	Pond, various gardens, play equipment, mural
Bonnington Primary	Play-led, various school policies	Wild garden, murals, seating, planters
Broughton Primary	Pupil council/good planning/involved outside agencies	Small garden, seating
Catterline Primary	Parents involved & whole school/curriculum resource	Wildlife garden
Cauldeen Primary	Min. maintenance design/community/curriculum use	Wildlife & sensory gardens, trees, seating
Colquhoun Park Primary	Whole school & site/murals/curriculum resource	Seating, trees, murals, planters
Cranloch School	Partnerships/behavioural issues/variety of features	Wildlife garden, veg garden
Crieff Road Pre-School	Child centred, hands-on, curriculum	Various gardens, woodland, play equipment
Currie High	Variety/interesting maintenance regime/pupil initiated	Woodland, courtyard (2 ponds), meadow, trees
Dunino Primary	Fife Grounds for Learning school/curriculum resource	Wildlife garden, seating
Dunning Primary	Whole school project involving community/child initiated	Wild areas, trees, mural, bird feeding,planters
Evie Primary	Maintenance/adverse conditions/wild areas	Wildlife area & formal garden, bird feeding
Gargunnock Primary	PTA initiated/variety of features/small, rural example	Wildlife garden, trees, play equipment
Gillburn Primary	Nature area outwith school/special needs integration	Nature reserve near school, dyke, marsh, paths
Glenborrodale Primary	Tiny, rural example/curriculum	Wildlife garden, pond/marsh
Govan High	Quadrangle & Japanese garden/stained glass/curriculum	Japanese garden, 2 quadrangles, pond, drama area
Hawick High	Quadrangle/curriculum/special needs use	Quadrangle, wild garden, disabled access
High School Yards Nursery	Variety of resources/child centred/confined space development	Courtyard planters, play equipment, wild area
Hyndland Primary	PTA initiated/good planning & model/split level site	Sculpture, garden, trees, mural, pp games
Inverbrothock Primary	Interesting features/strong community links	Various gardens, seating
Islay High	ATeacher initiated/community & curriculum resource	Pond, paths, seating, art, wildlife habitats
James Aiton Primary	Initiated by outside agency/variety of features/outside use	Pond, trees, meadow, tree nursery, hedges, garden
Kelvin School	Partnership/outside agencies involved including Esso	Sensory garden, maze, seating, tanker seat
Kingspark School	Strong Env Education curriculum/whole school approach	Wild area, play equipment, sensory garden, birds
Kippen Primary	Scot's language use of grounds & nearby Environment centre grounds	Wildlife garden
Leith Academy	New build school/excellent design/quadrangles & glass street	Quadrangles, greenhouse, internal planting
Linlithgow Primary	Partnerships/Grounds for Awareness school/BP links	Wildlife garden, planters, paths, play features
Lugton School	Behavioural improvements/whole site/murals	Seating, murals, wild garden, woodland
Lunnasting Primary	Adverse conditions/school by sea/curriculum use	Wildlife habitats
Mossbank Primary	Eco school/partnerships/CITB input/community links	Wild areas, garden, planters, paths, art, murals
Muiredge Primary	Pupil initiated/outside agencies involved	Garden, trees, play features, art, paths
Park Place Nursery	Multicultural/whole school & community/LTL Urban Challenge winner	World garden, sculpture wall, maze, gates, trees
Peel Primary	Very strong curriculum links/outside agency/adopted wood	Woodland, pp games, tree nursery, gardens
Perth High	Initiated to tackle bullying/quadrangle project/school ethos	Quadrangles, seating, garden, greenhouse
Pitreavie Primary	Quadrangle project/outside agencies involved	Quadrangle, 2 ponds, wildlife habitats, paths
Prestonfield Primary	Ethos, play & behavioural improvements/LTL Urban Challenge winner	Trees, play features, seating, courtyard garden
Sanday Junior High	Adverse conditions & improvements for wildlife	Wildlife habitats
Sauchie Nursery	Beechgrove Garden involved/strong community links	Rainbow garden, sensory beds, play features
Slaemuir Primary	Mini horticultural enterprise (SCDI award)/HMI comments initiated	Veg/formal garden in quadrangle
St Andrew's RC Primary	Behavioural improvements/won KSB award/school ethos	Wildlife garden, herbs, planters, pond, pp games
St Elizabeth's Primary	Whole school & site/development plan/community links	Trees, courtyard, planters, garden area
Strathblane Primary	HMI favourable comments-image improved	Wildlife habitats
Tollcross Primary	Community school/all tarmac improvements/mural	Mural, trees, play equipment, planters
Underbank Primary	Strong planning, community & fundraising	Wildlife area, pond, seating, meadow, birds
Wardie Primary	Development plan/variety of features/ethos improved	Trees, play features, bird hide, seating, murals
Webster's High	Community tree planting project/management plans/quadrangle	Trees, quadrangle, seating, paths

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NOTES

Grounds for Learning

A celebration of school site developments in Scotland

Many schools in Scotland are already aware of the benefits of developing school grounds. As well as resulting in a more pleasant working environment, schools report a range of benefits, including more positive attitudes, improved behaviour and a larger variety of interesting learning resources. This book will inspire and support schools who wish to take advantage of these benefits by drawing on the experiences of schools across Scotland. Contained in this book is information about:

- Introductory remarks from Magnus Magnusson and Bill Lucas.
- Analysis of the different techniques schools have used to ensure whole school involvement in the process of school grounds development.
- Detailed case studies.
- Full-colour photographs.
- Sources of help and information.

The Grounds for Learning Partnership was established in 1995 with funding from Learning through Landscapes and Scottish Natural Heritage and support from the Scottish Environmental Education Council and the Grounds for Learning Forum. The project aims to encourage the sustainable development, management and use of Scotland's school grounds. The author, Kate Kenny, is the Project Coordinator for the Partnership.

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